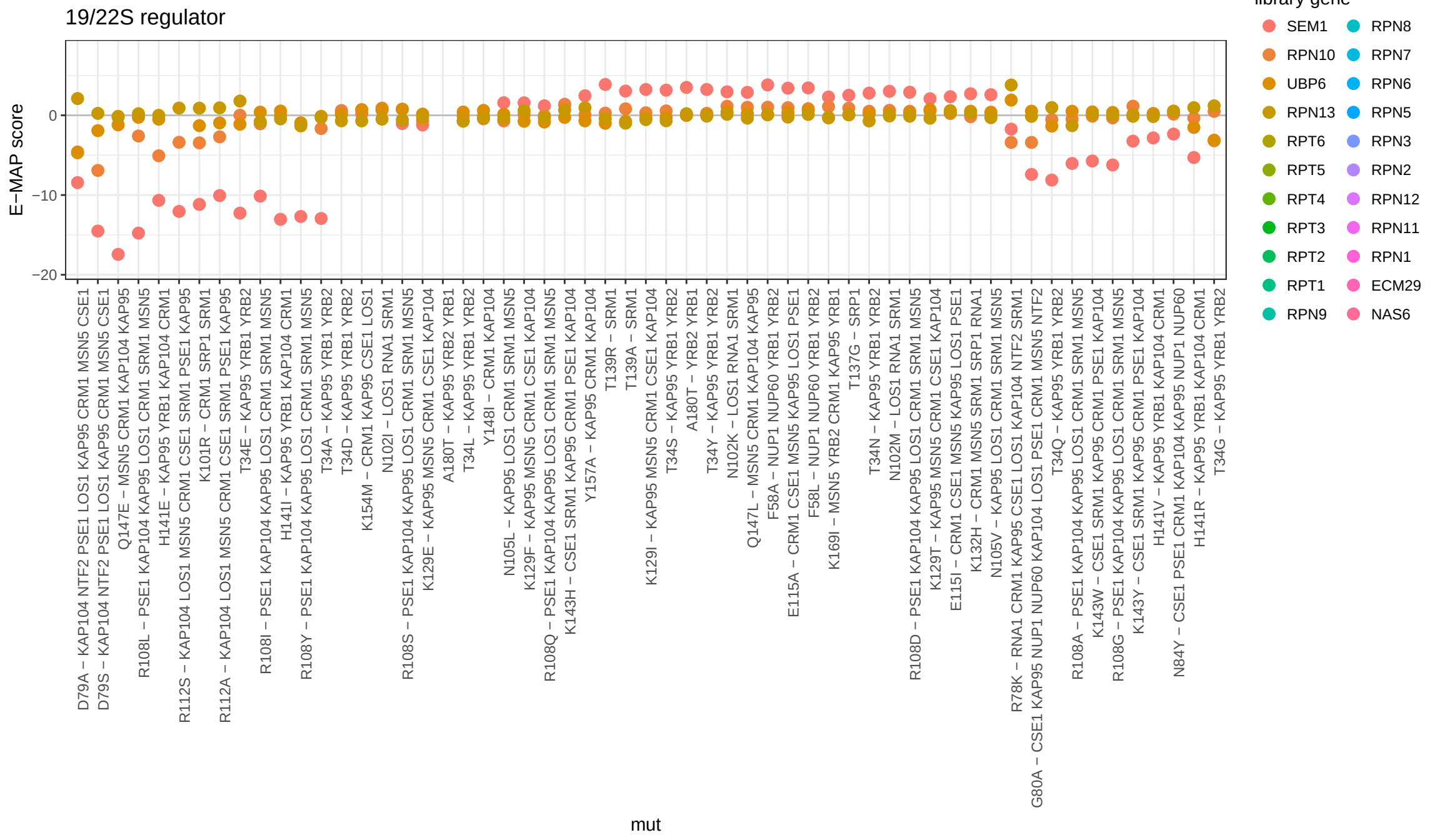
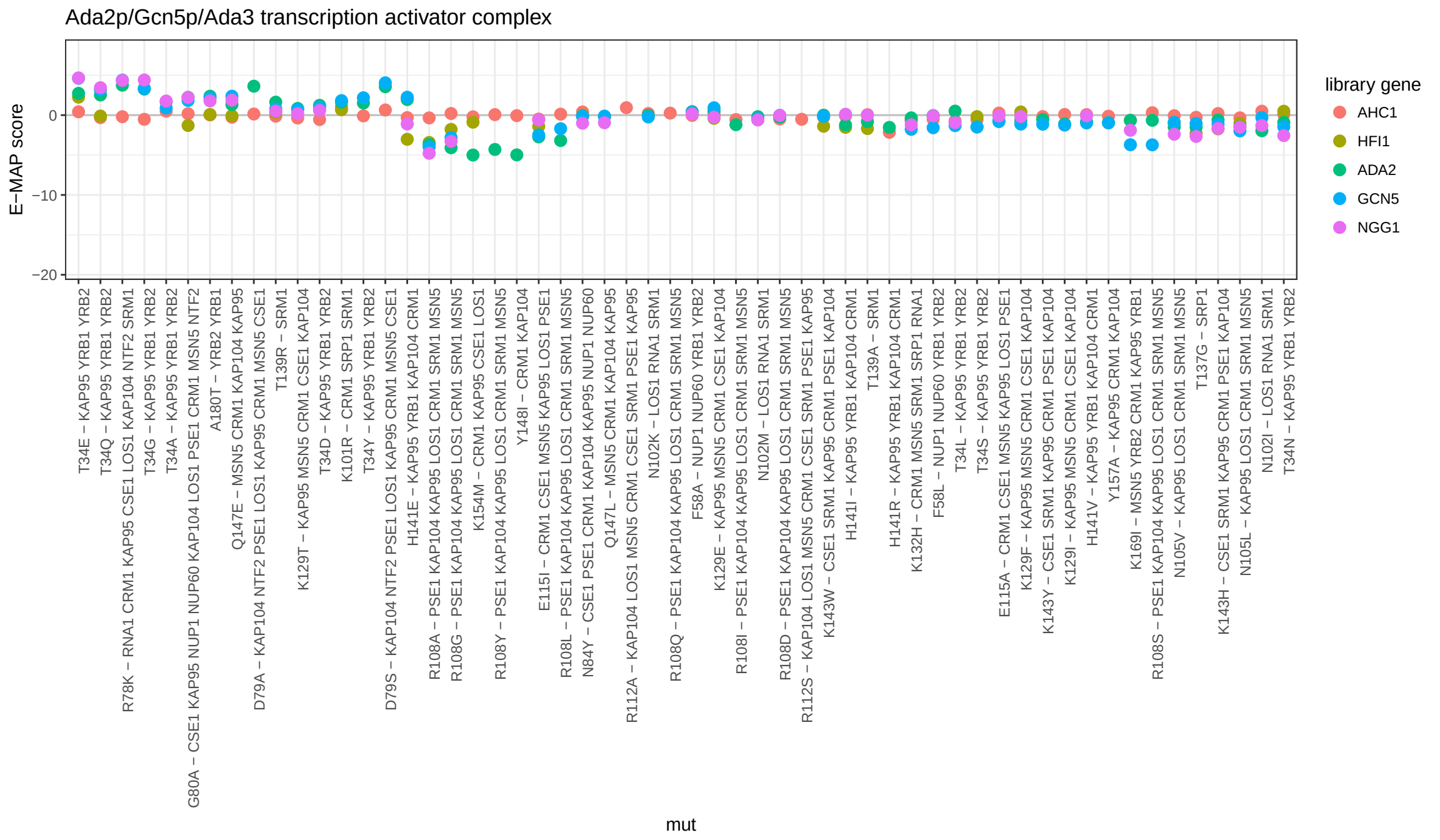
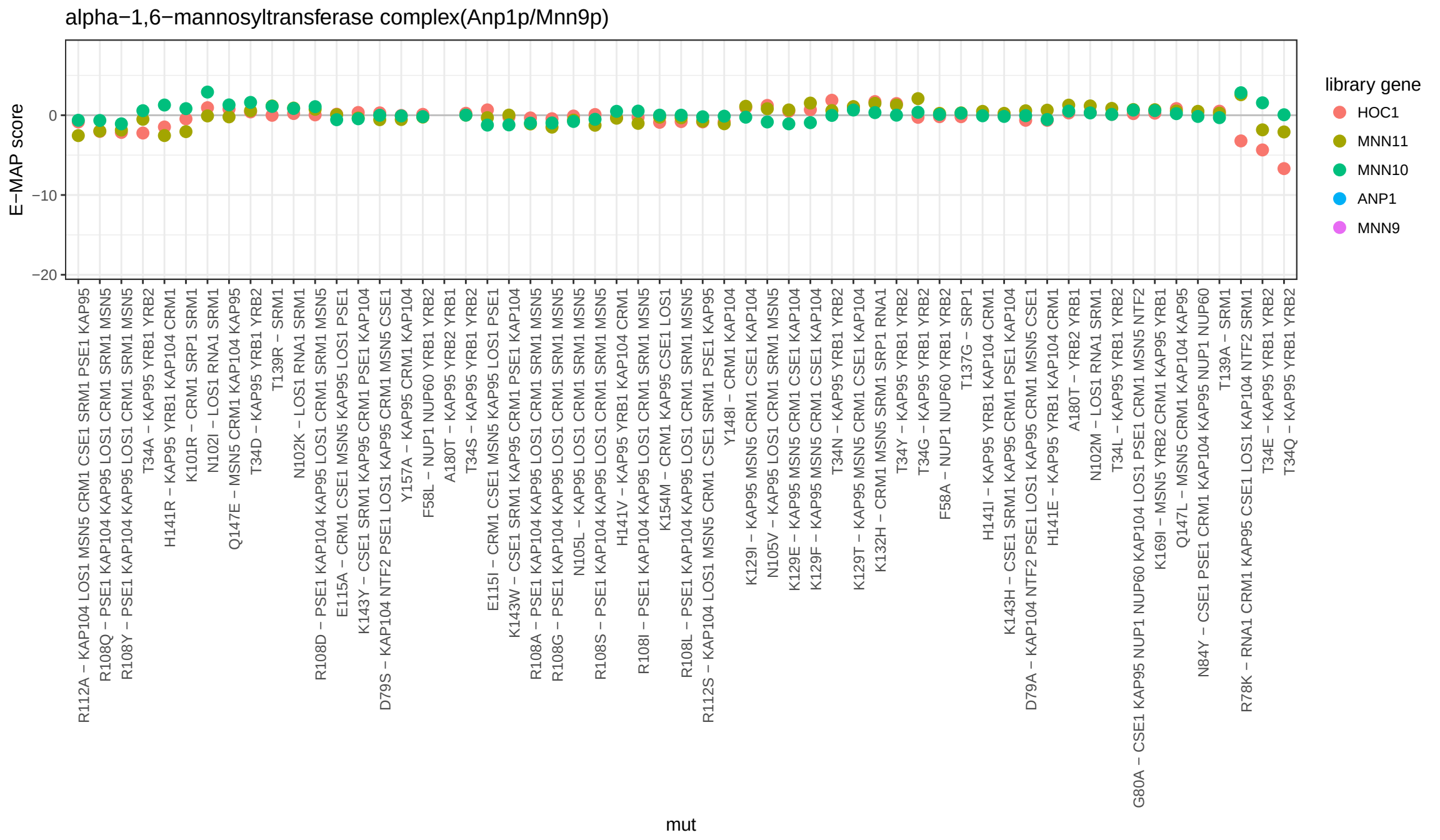
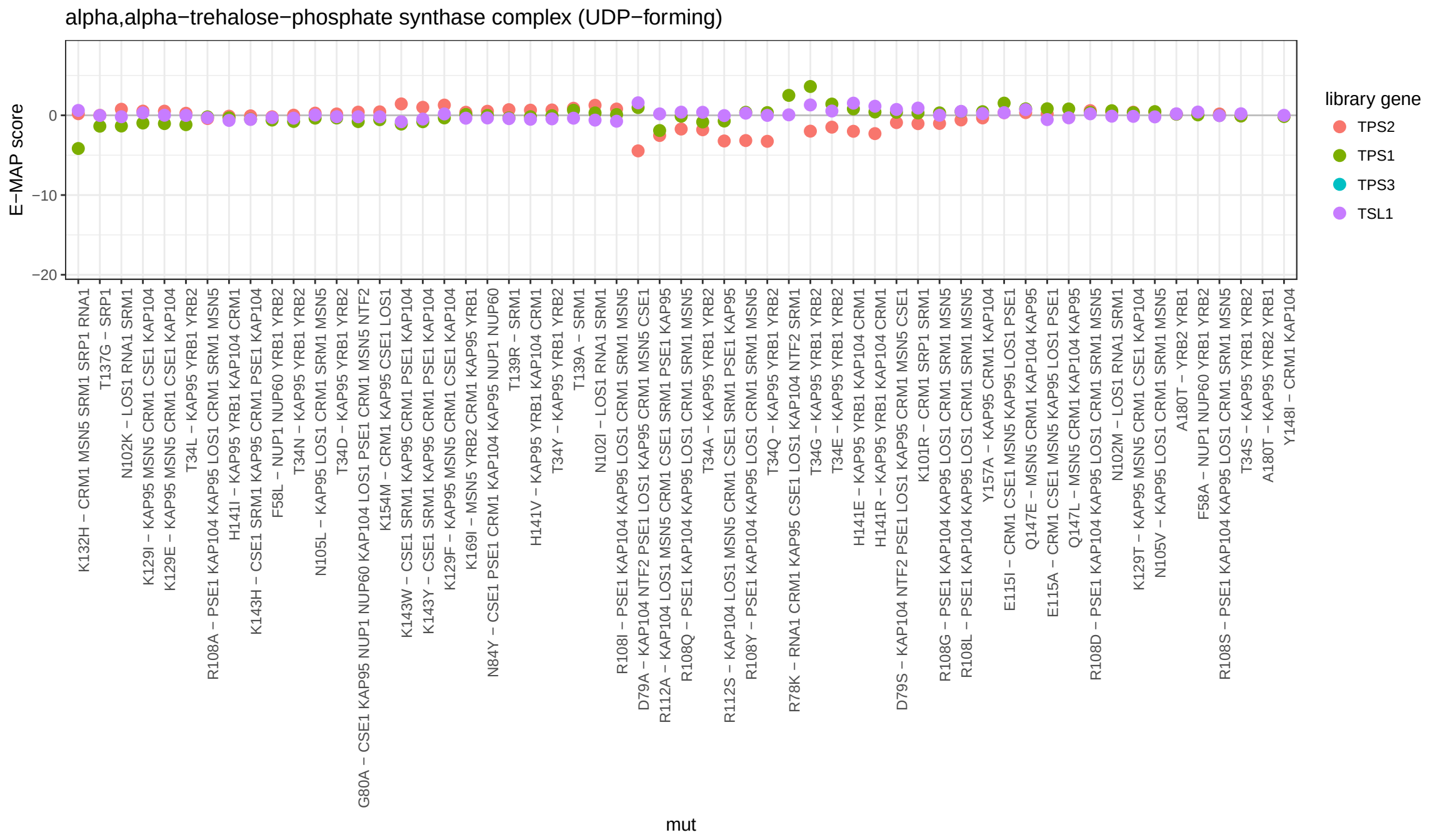
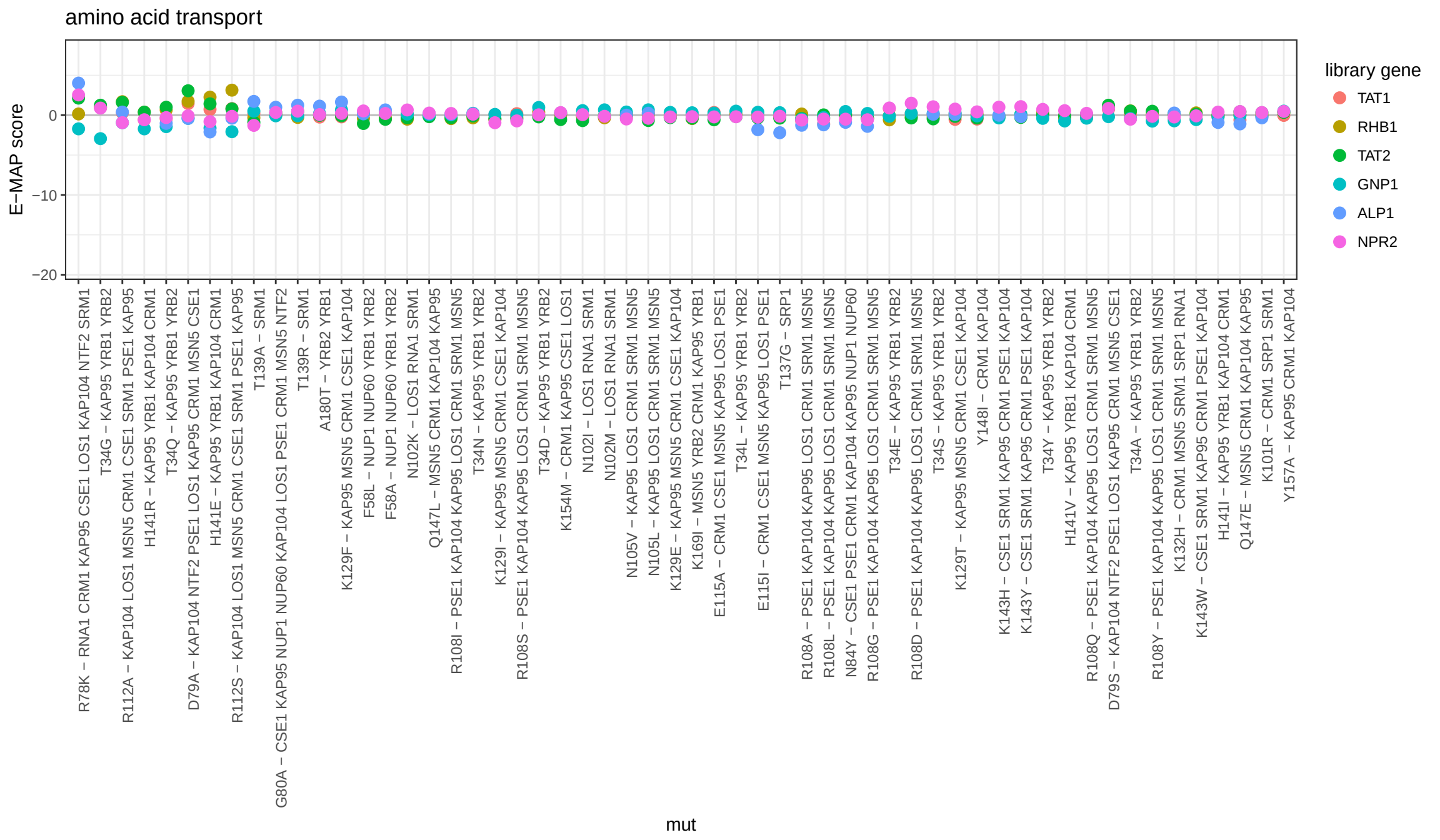
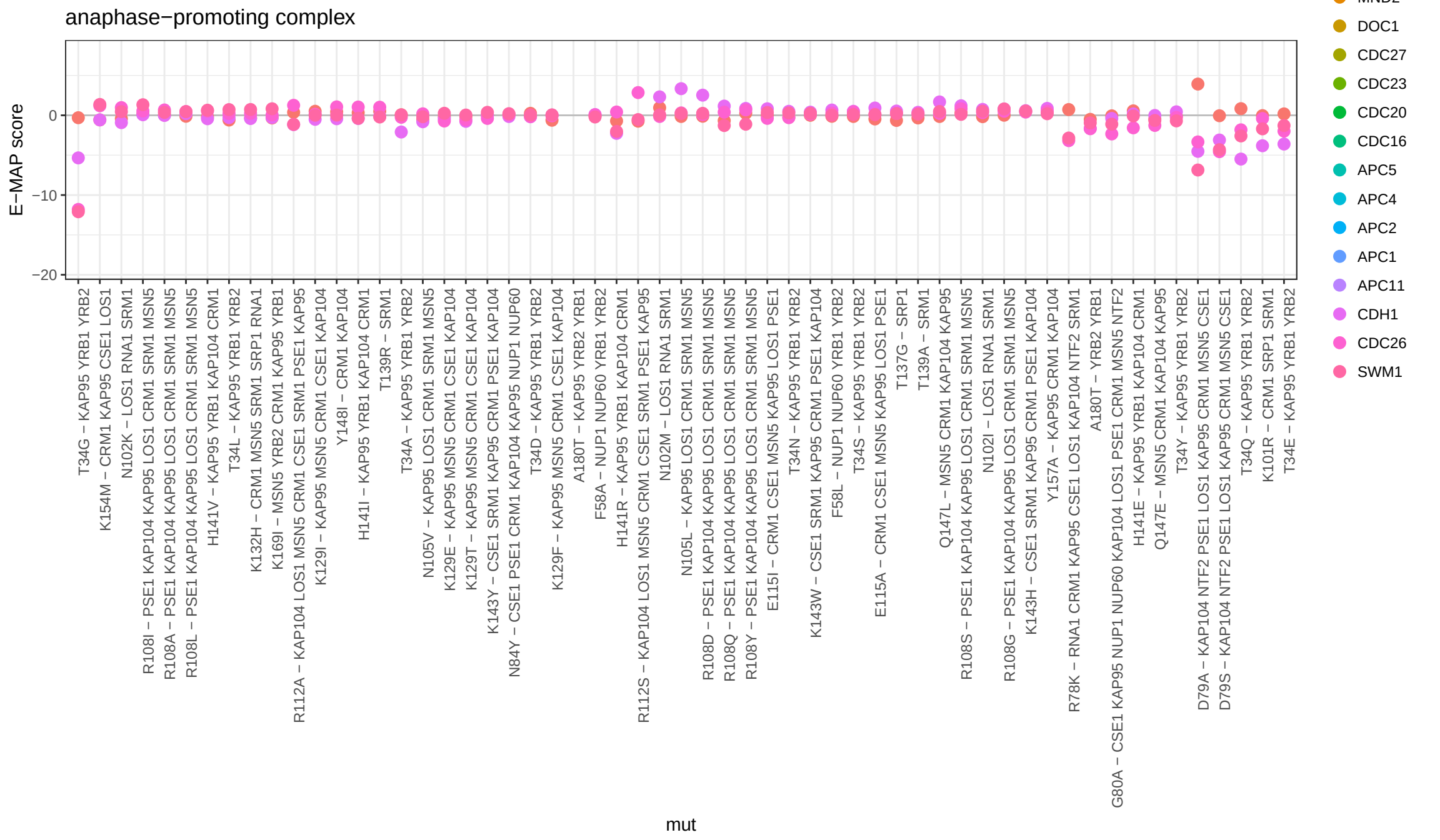

19/22S regulator
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Q147E – MSN5 CRM1 KAP104 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N102I – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
T34L – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y157A – KAP95 CRM1 KAP104
T139R – SRM1
T139A – SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T34Y – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
F58A – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T137G – SRP1
T34N – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34Q – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141R – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
library gene
SEM1
RPN10
UBP6
RPN13
RPT6
RPT5
RPT4
RPT3
RPT2
RPT1
RPN9
RPN8
RPN7
RPN6
RPN5
RPN3
RPN2
RPN12
RPN11
RPN1
ECM29
NAS6

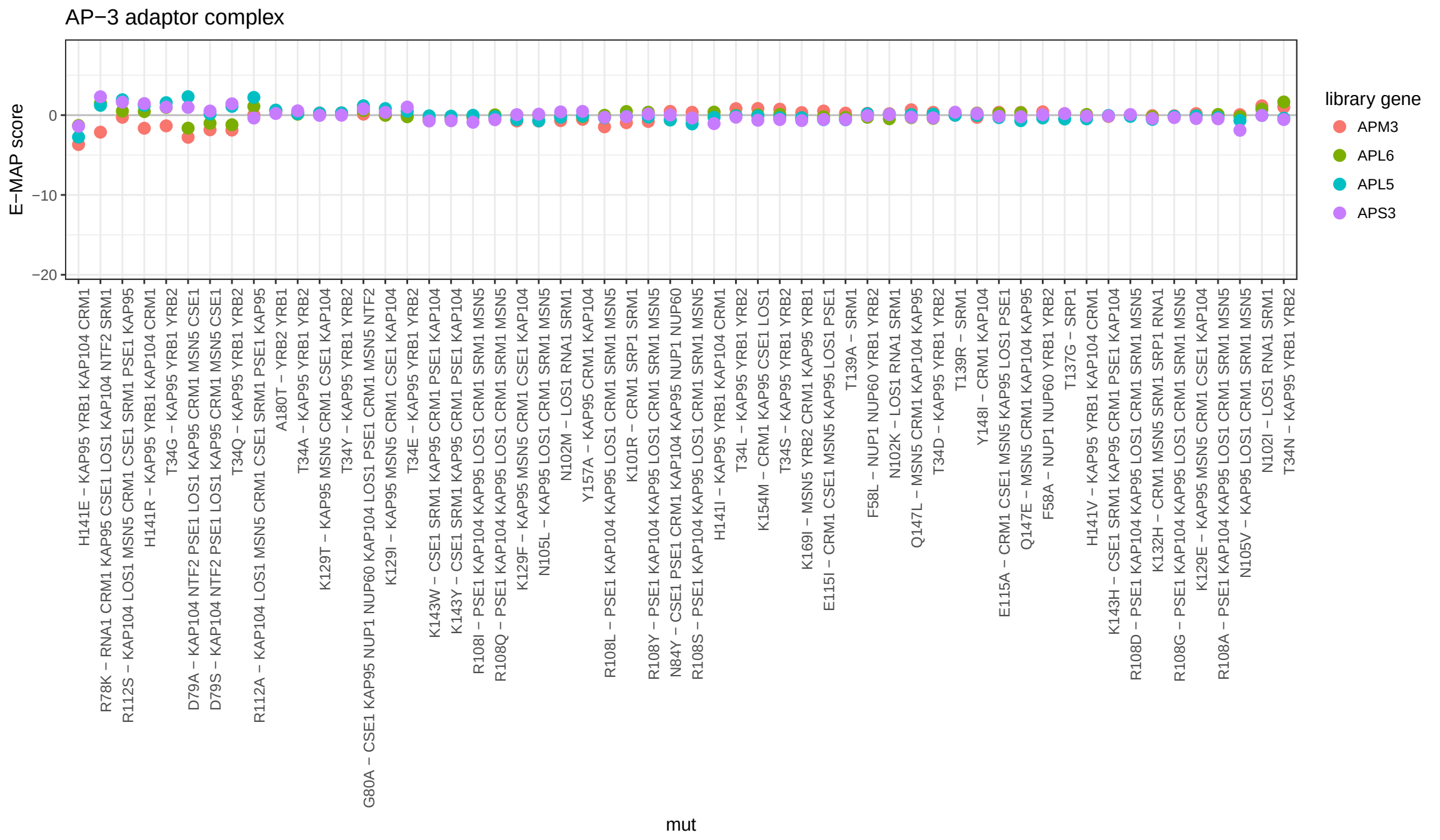

Ada2p/Gcn5p/Ada3 transcription activator complex
E−MAP score
0
−10
−20
library gene
AHC1
HFI1
ADA2
GCN5
NGG1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
A180T – YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T139R – SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Y – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147L – MSN5 CRM1 KAP104 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102K – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
H141R – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
F58L – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
mut

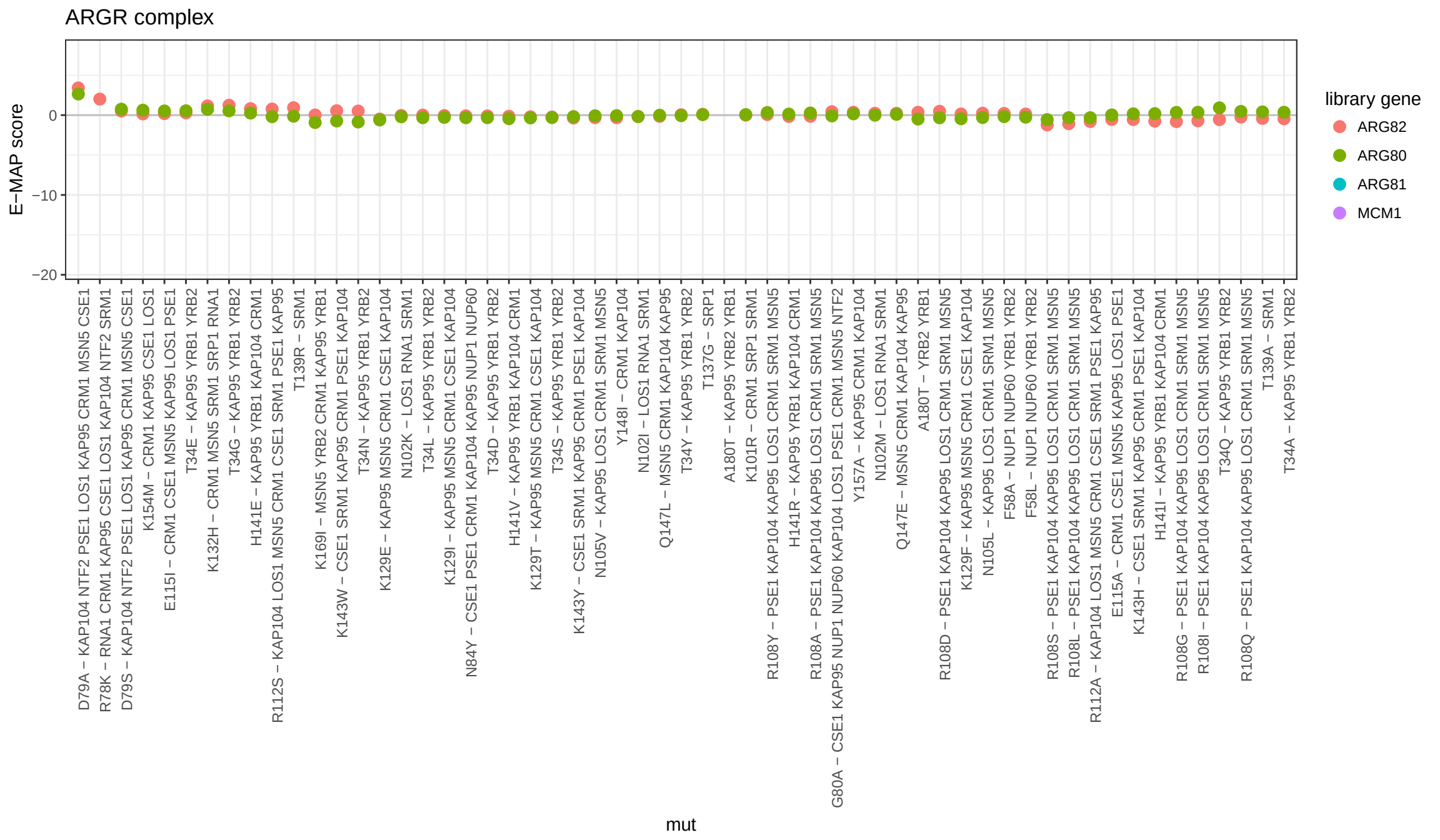

alpha−1,6−mannosyltransferase complex(Anp1p/Mnn9p)
E−MAP score
0
−10
−20
library gene
HOC1
MNN11
MNN10
ANP1
MNN9
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
N102I – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
T139R – SRM1
N102K – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
T34S – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y148I – CRM1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34Y – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
H141I – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
A180T – YRB2 YRB1
N102M – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139A – SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
mut

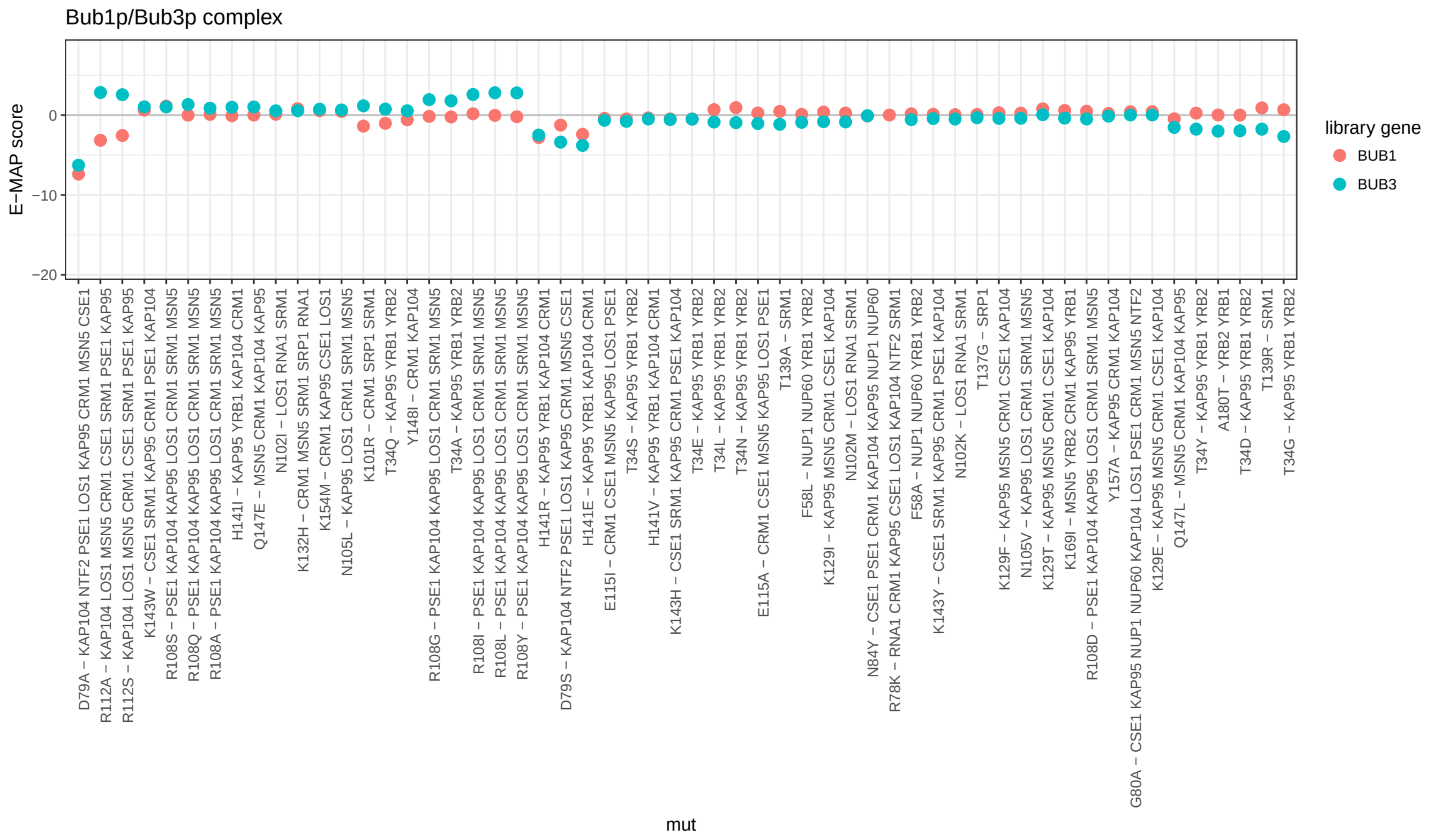

alpha,alpha−trehalose−phosphate synthase complex (UDP−forming)
E−MAP score
0
−10
−20
library gene
TPS2
TPS1
TPS3
TSL1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T137G – SRP1
N102K – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K154M – CRM1 KAP95 CSE1 LOS1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
T34Y – KAP95 YRB1 YRB2
T139A – SRM1
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
Y148I – CRM1 KAP104
mut

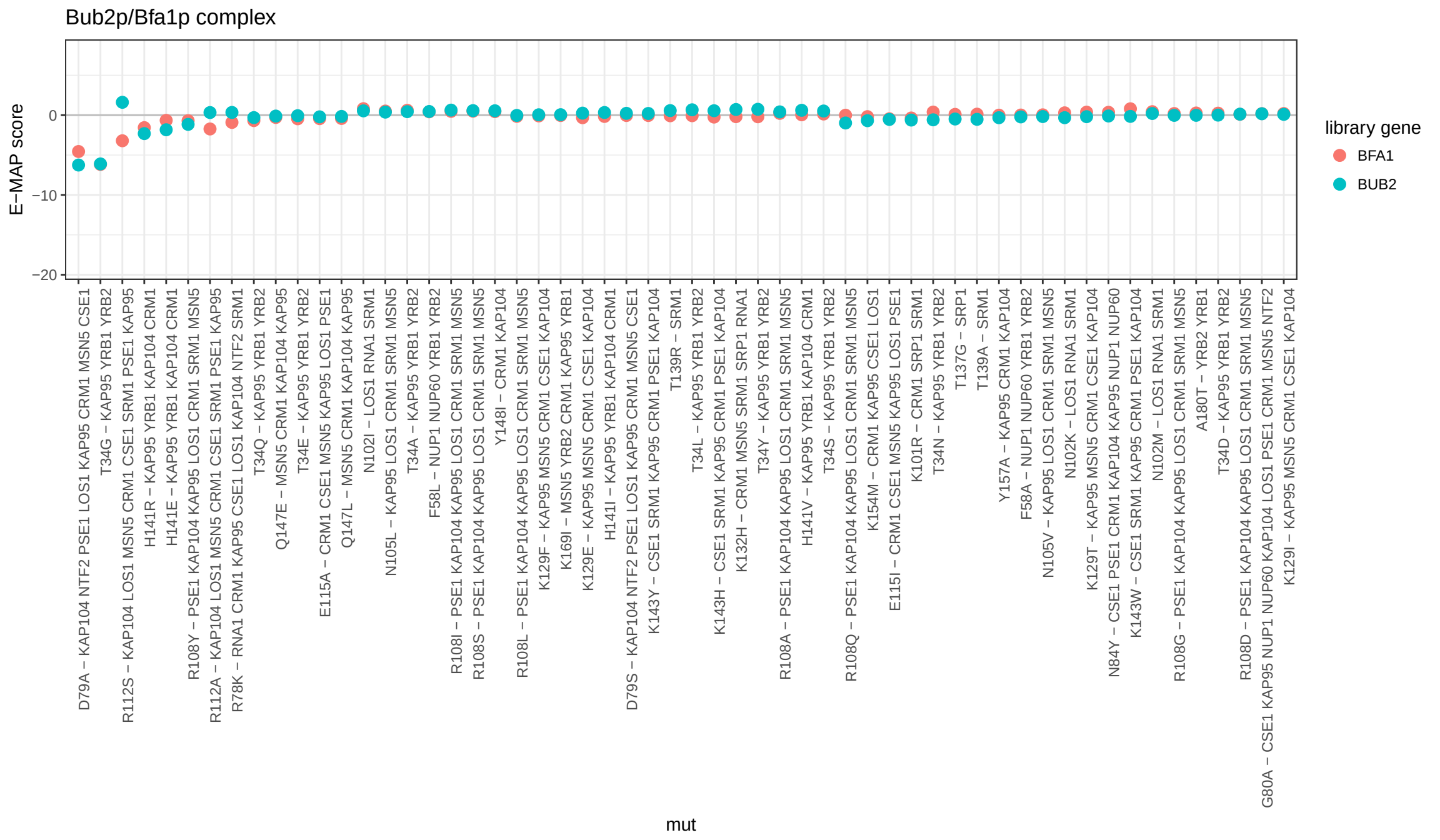

amino acid transport
E−MAP score
0
−10
−20
mut
library gene
TAT1
RHB1
TAT2
GNP1
ALP1
NPR2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T139A – SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
A180T – YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N102I – LOS1 RNA1 SRM1
N102M – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Y148I – CRM1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34A – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104

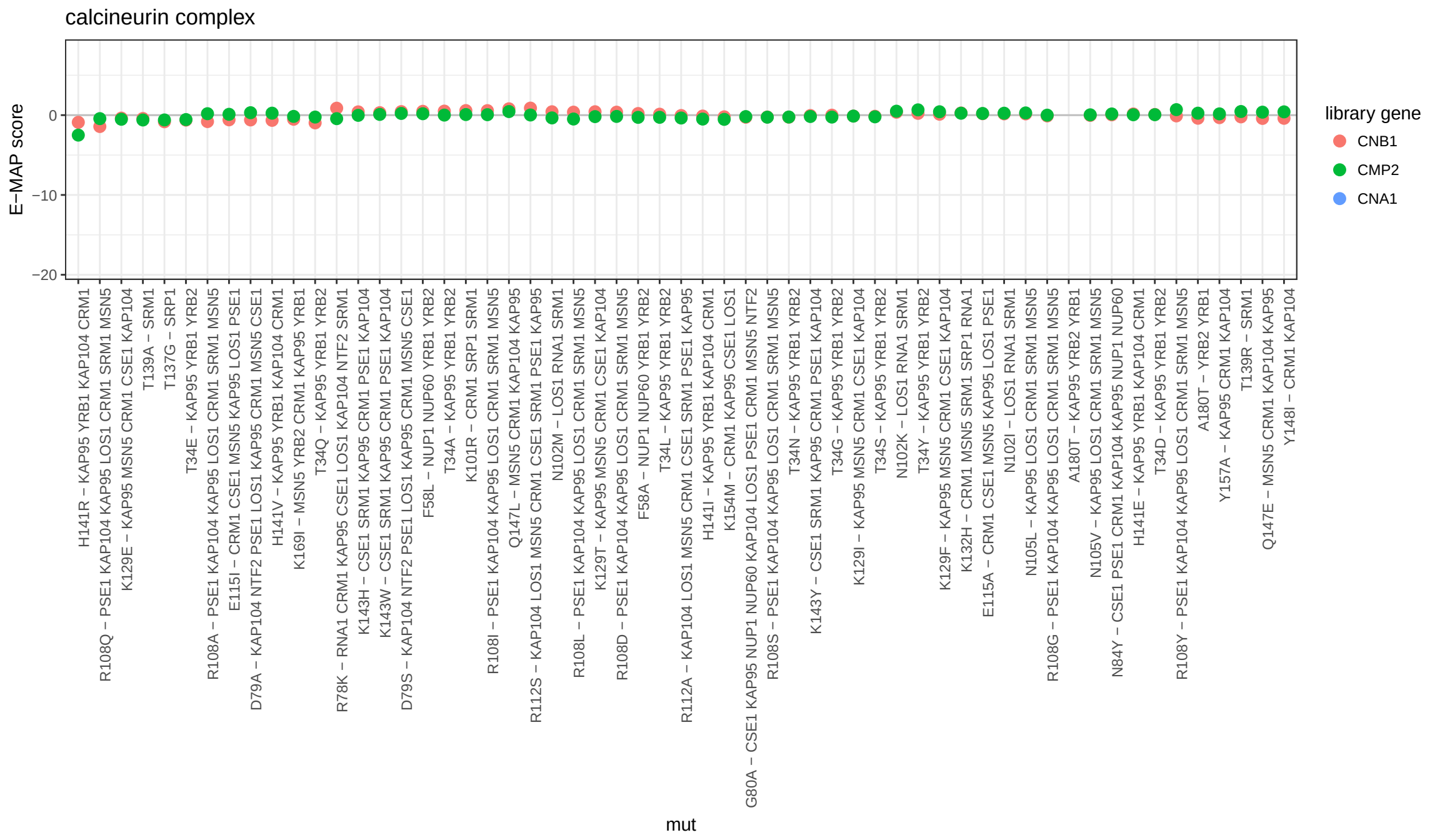

anaphase−promoting complex
E−MAP score
0
−10
−20
mut
T34G – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N102K – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
T34A – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102M – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34N – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
T139A – SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y157A – KAP95 CRM1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
A180T – YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141E – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
DOC1
CDC27
CDC23
CDC20
CDC16
APC5
APC4
APC2
APC1
APC11
CDH1
CDC26
SWM1

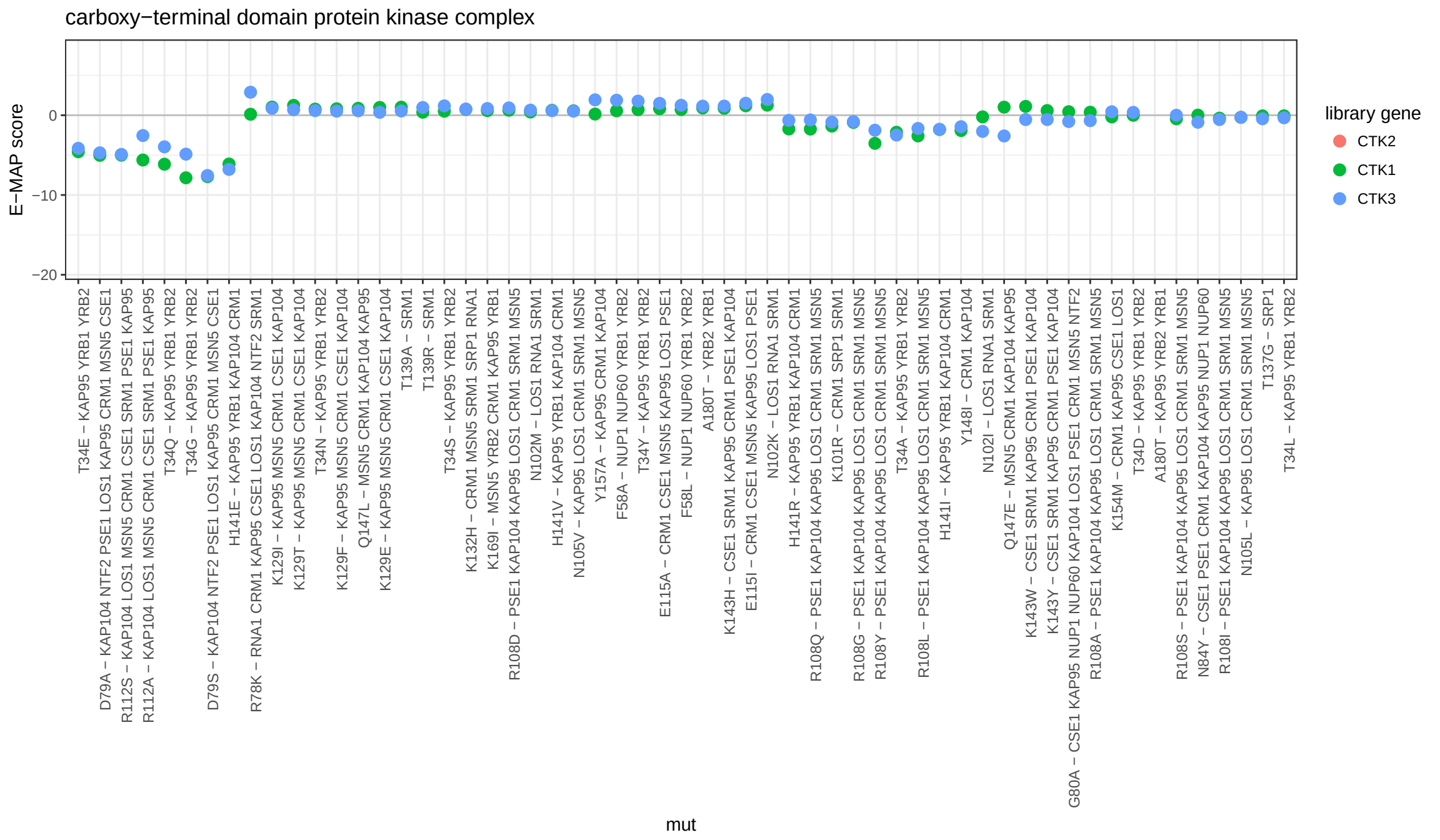

AP−3 adaptor complex
E−MAP score
0
−10
−20
library gene
APM3
APL6
APL5
APS3
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
A180T – YRB2 YRB1
T34A – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34E – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
Y157A – KAP95 CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T34S – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
T139R – SRM1
Y148I – CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
F58A – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
mut

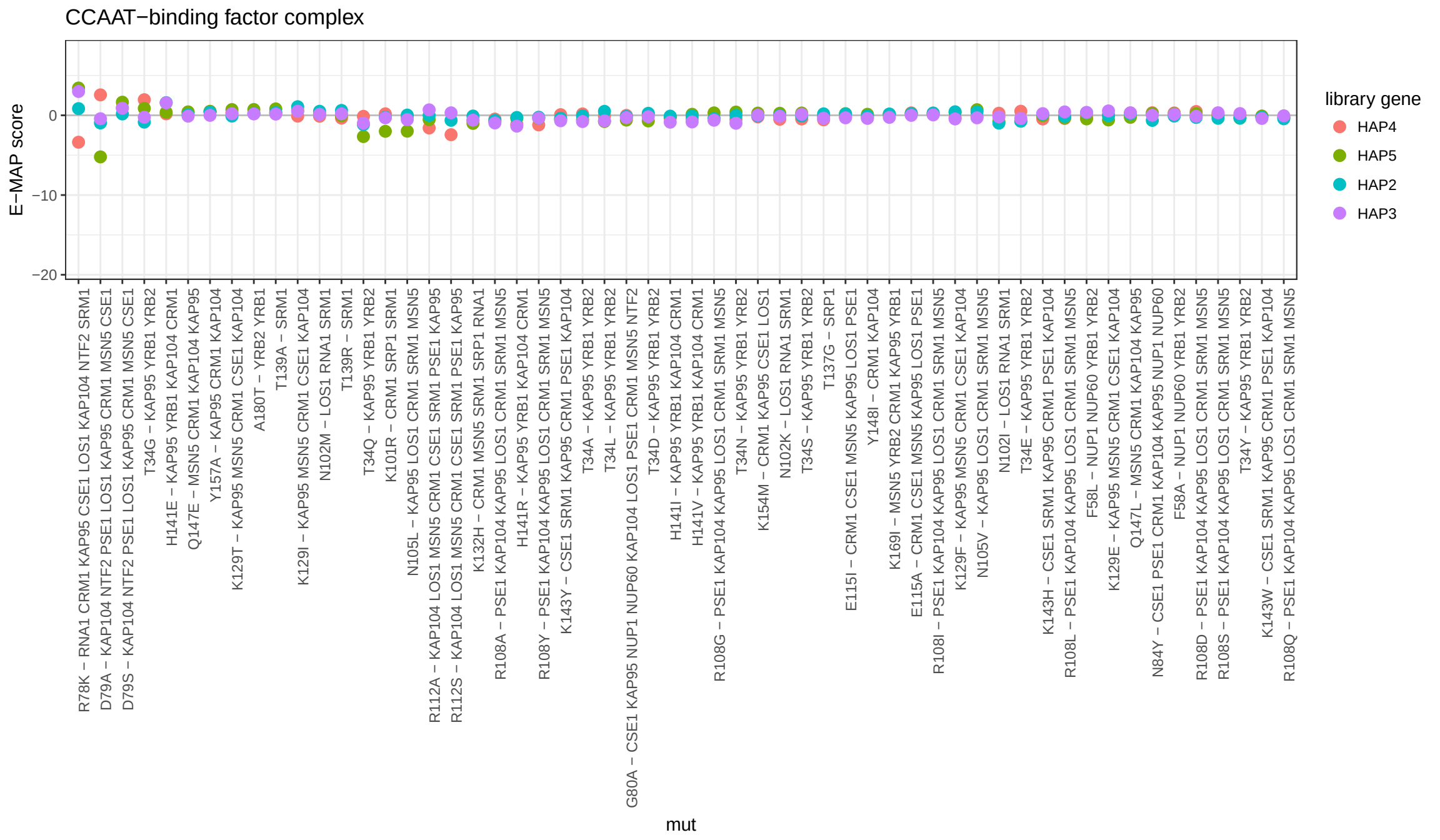

ARGR complex
E−MAP score
0
−10
−20
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K154M – CRM1 KAP95 CSE1 LOS1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34E – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34G – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T139R – SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
N102I – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
T137G – SRP1
A180T – KAP95 YRB2 YRB1
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y157A – KAP95 CRM1 KAP104
N102M – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
T34A – KAP95 YRB1 YRB2
mut
library gene
ARG82
ARG80
ARG81
MCM1

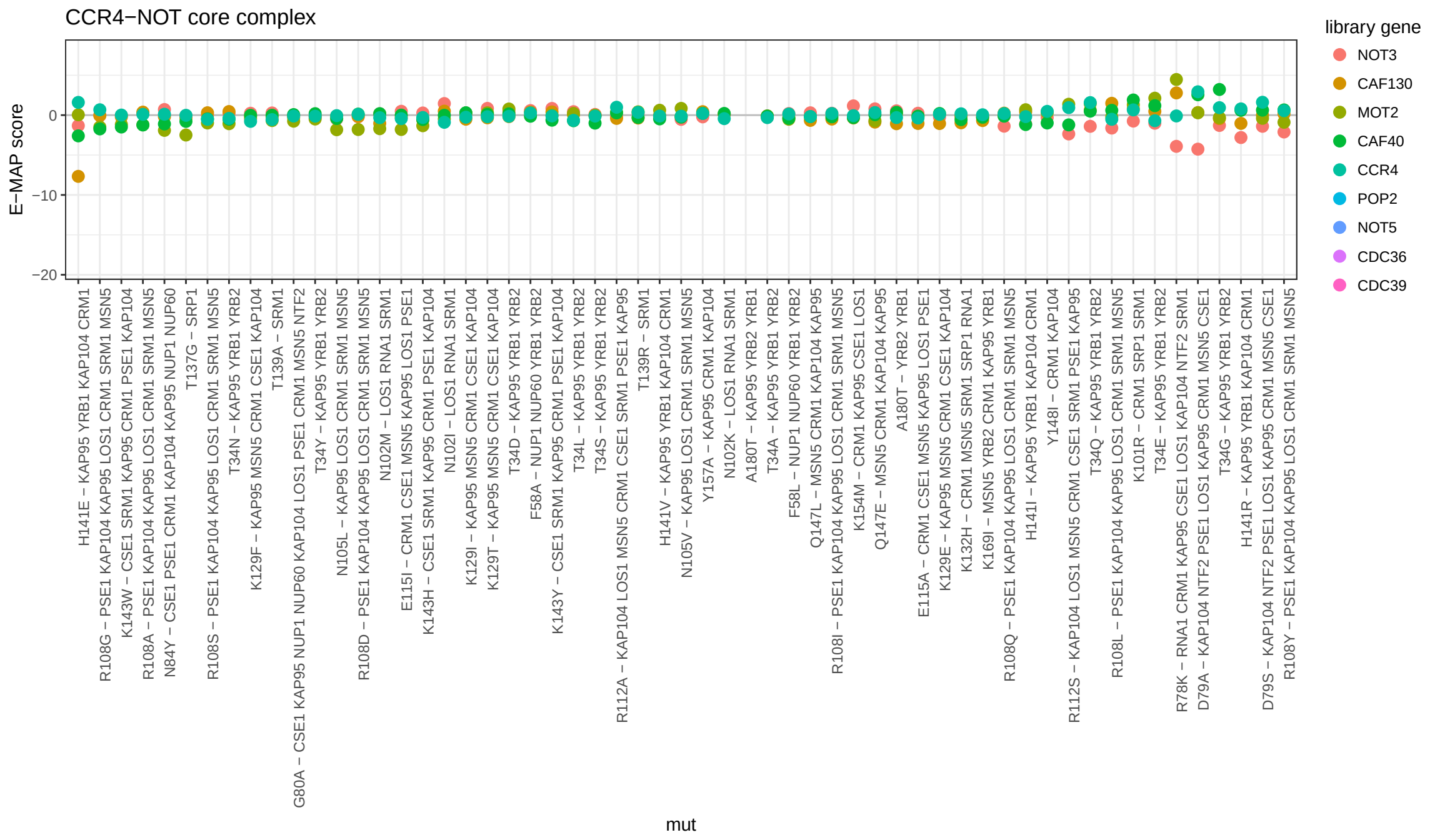

Bub1p/Bub3p complex
E−MAP score
0
−10
−20
mut
library gene
BUB1
BUB3
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34E – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
T137G – SRP1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
T139R – SRM1
T34G – KAP95 YRB1 YRB2

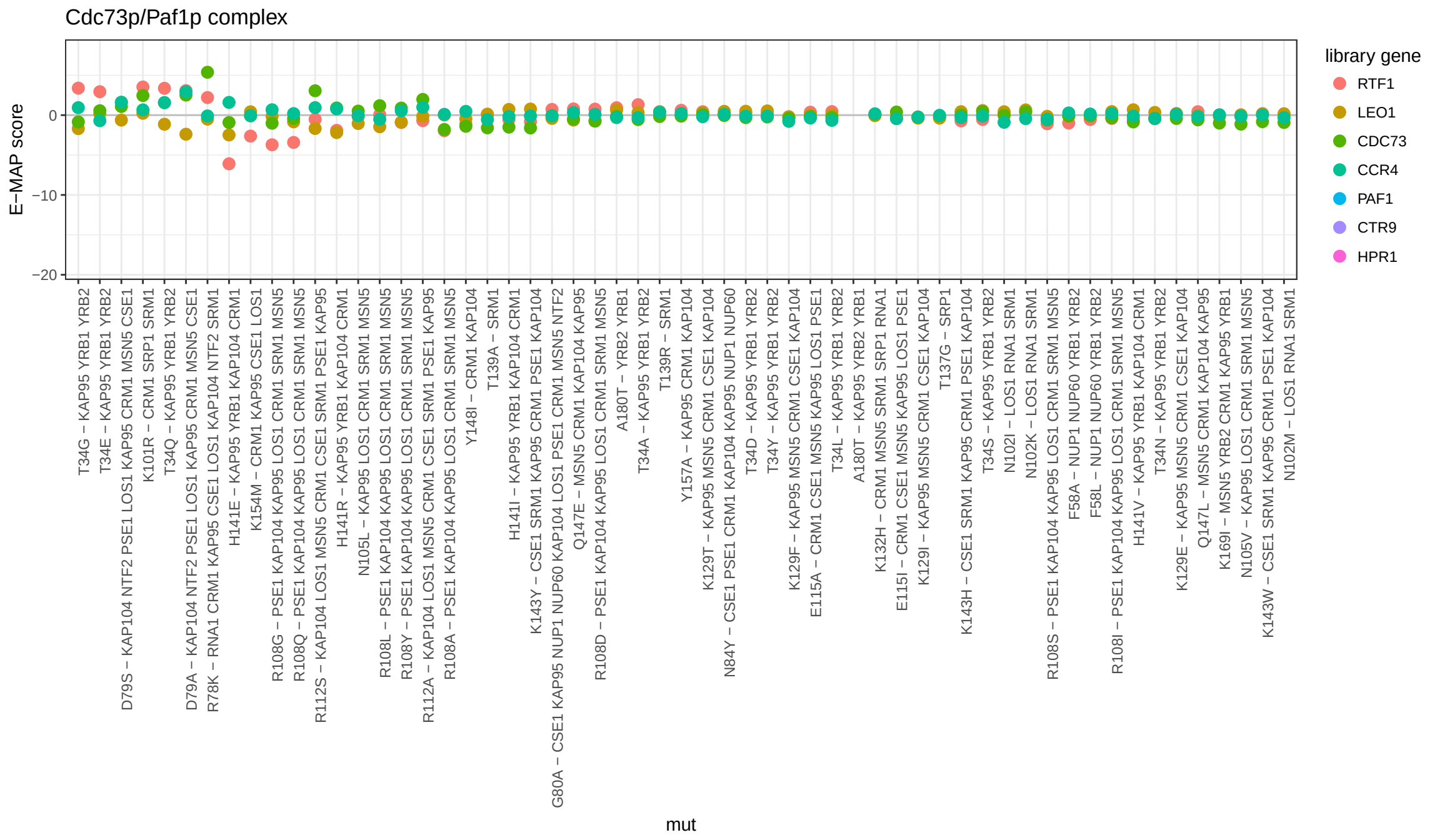

Bub2p/Bfa1p complex
E−MAP score
0
−10
−20
library gene
BFA1
BUB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34Q – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T34E – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
T34L – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34Y – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34S – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K101R – CRM1 SRP1 SRM1
T34N – KAP95 YRB1 YRB2
T137G – SRP1
T139A – SRM1
Y157A – KAP95 CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
mut

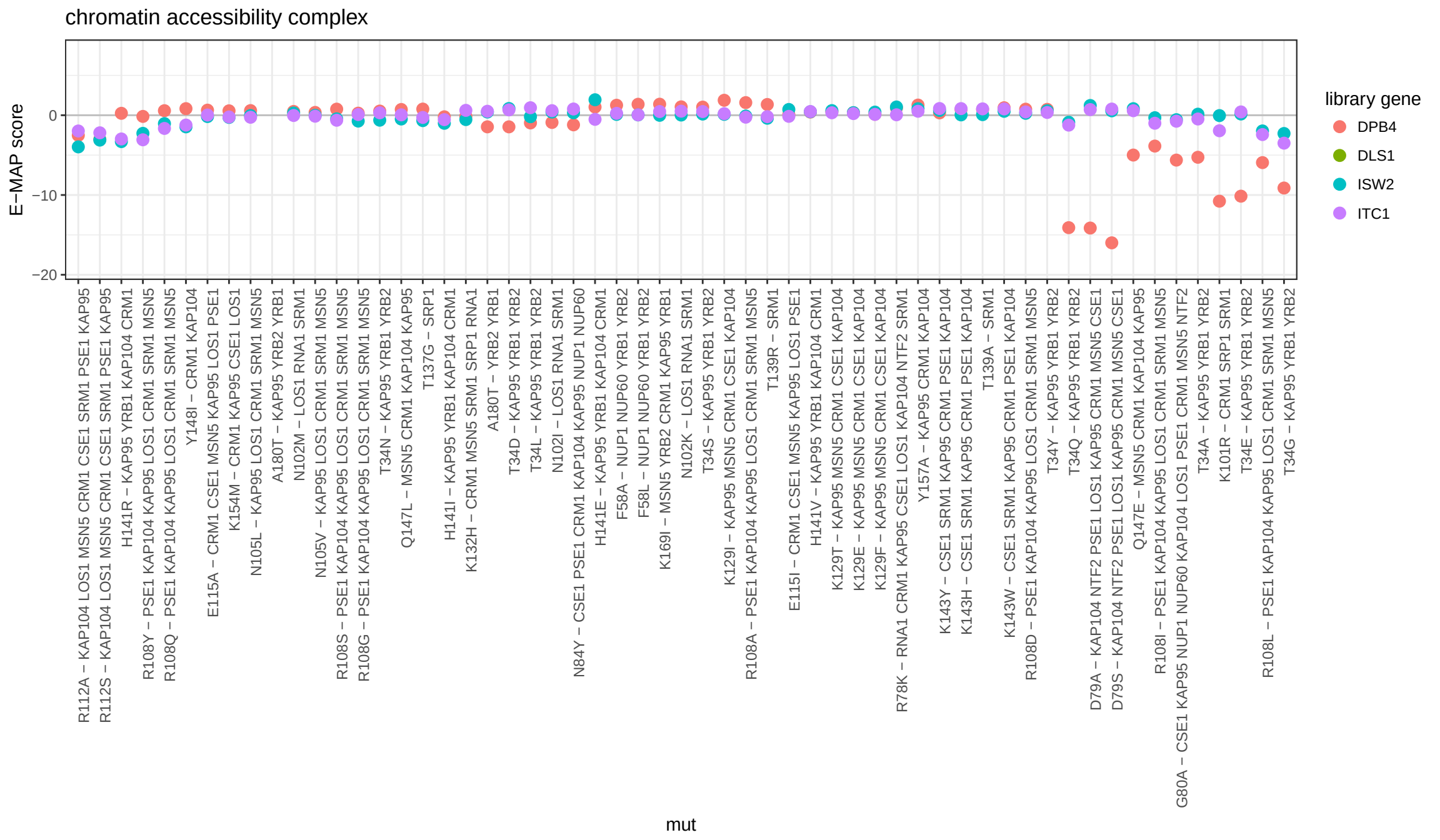

calcineurin complex
E−MAP score
0
−10
−20
mut
library gene
CNB1
CMP2
CNA1
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
T137G – SRP1
T34E – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141V – KAP95 YRB1 KAP104 CRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
F58L – NUP1 NUP60 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102M – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34G – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141E – KAP95 YRB1 KAP104 CRM1
T34D – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
Y157A – KAP95 CRM1 KAP104
T139R – SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
Y148I – CRM1 KAP104

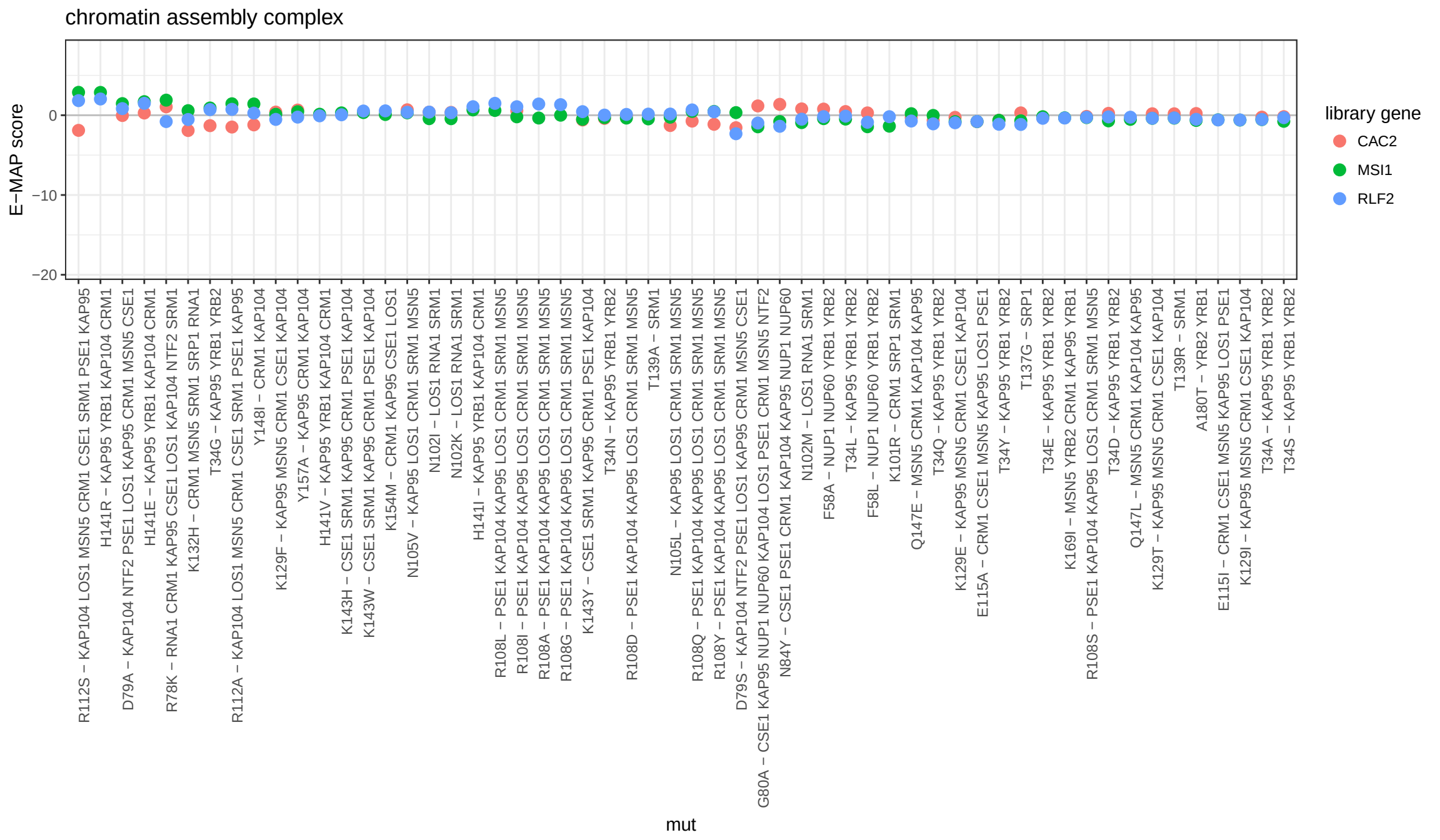

carboxy−terminal domain protein kinase complex
E−MAP score
0
−10
−20
mut
library gene
CTK2
CTK1
CTK3
T34E – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
T139R – SRM1
T34S – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
A180T – YRB2 YRB1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
N102I – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T34D – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T34L – KAP95 YRB1 YRB2

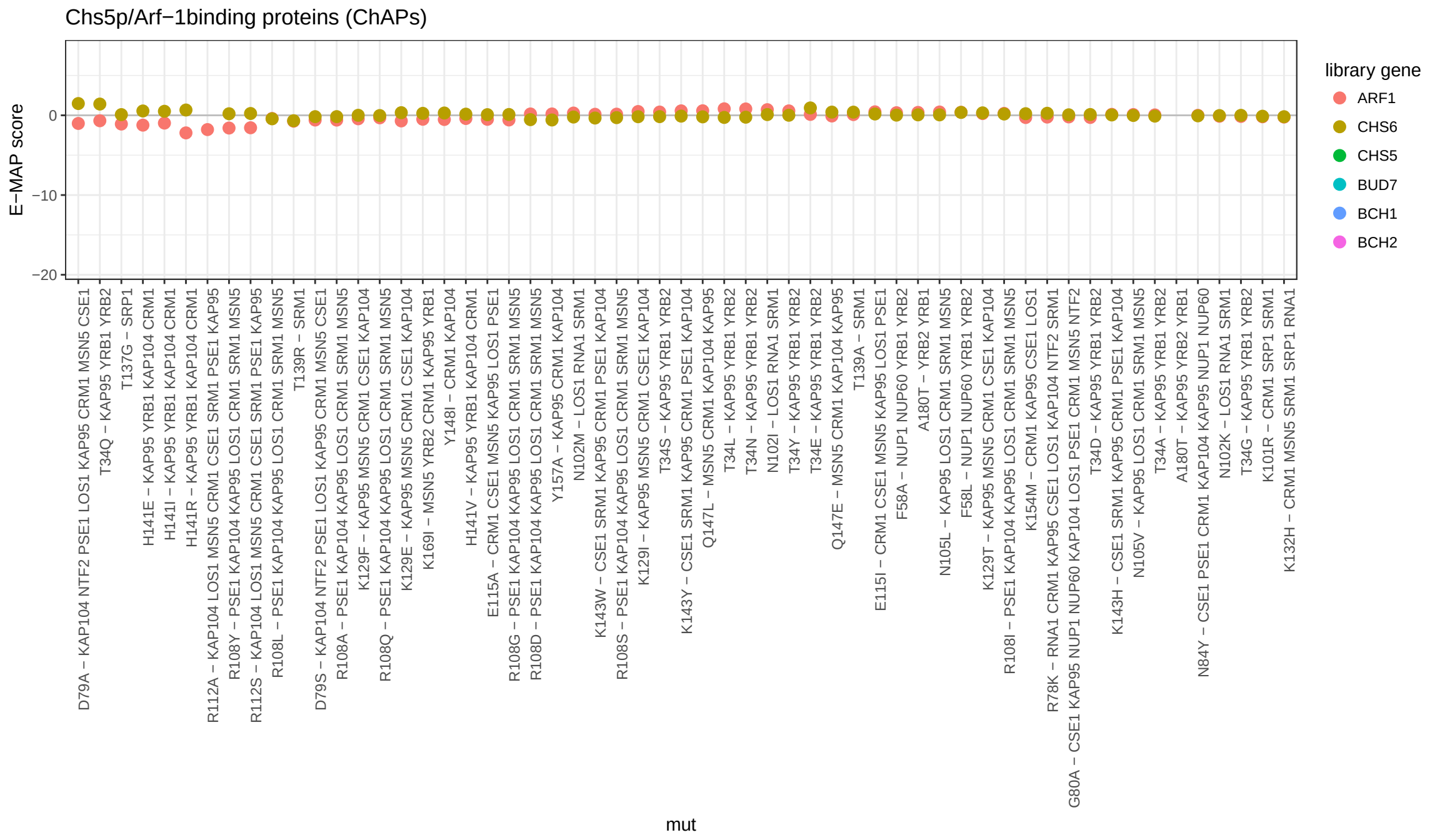

CCAAT−binding factor complex
E−MAP score
0
−10
−20
mut
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
Y157A – KAP95 CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
T139A – SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
T139R – SRM1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N102K – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
T137G – SRP1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y148I – CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T34E – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
library gene
HAP4
HAP5
HAP2
HAP3

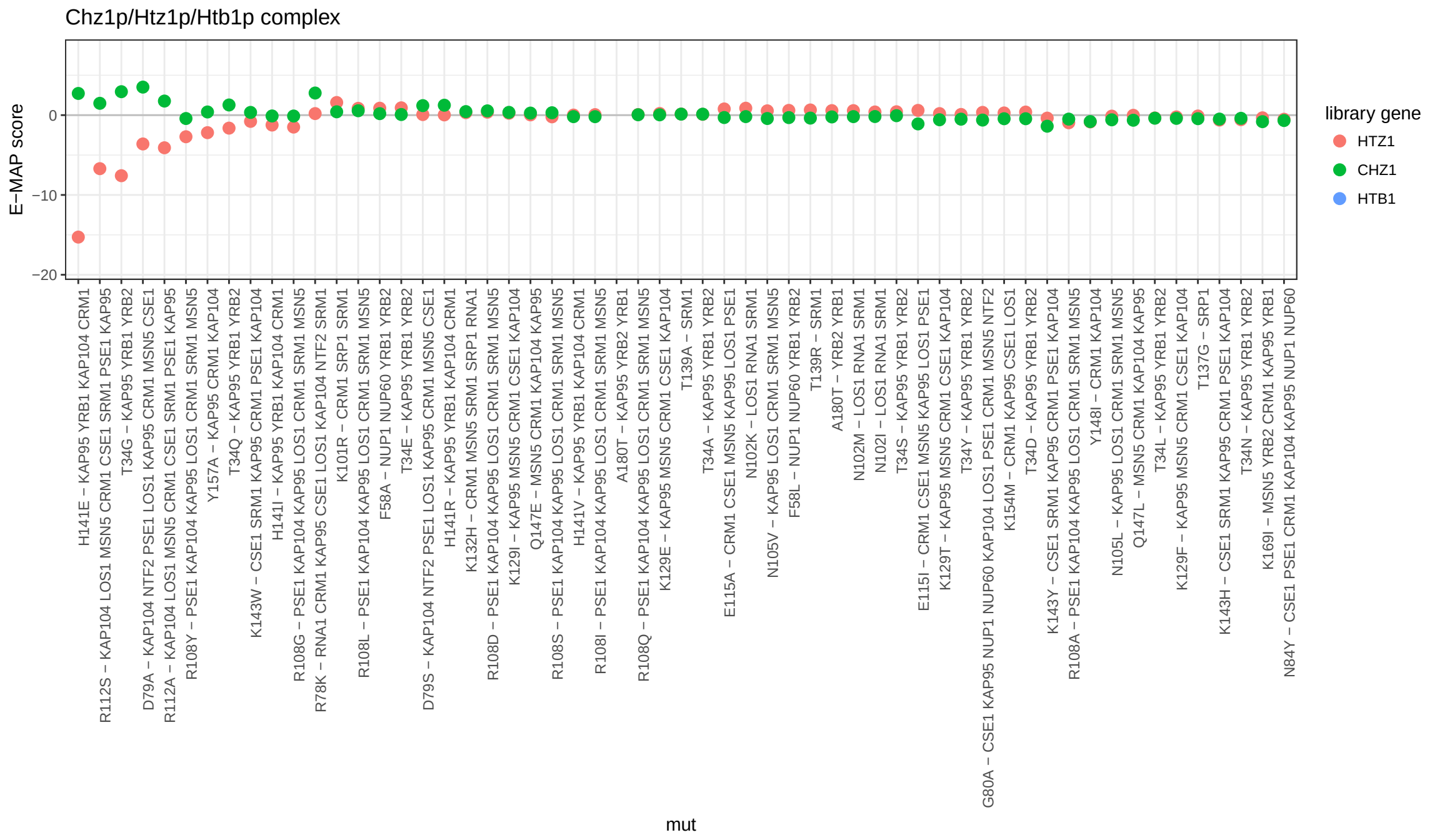

CCR4−NOT core complex
E−MAP score
0
−10
−20
mut
library gene
NOT3
CAF130
MOT2
CAF40
CCR4
POP2
NOT5
CDC36
CDC39
H141E – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T137G – SRP1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34Y – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T139R – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
N102K – LOS1 RNA1 SRM1
A180T – KAP95 YRB2 YRB1
T34A – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

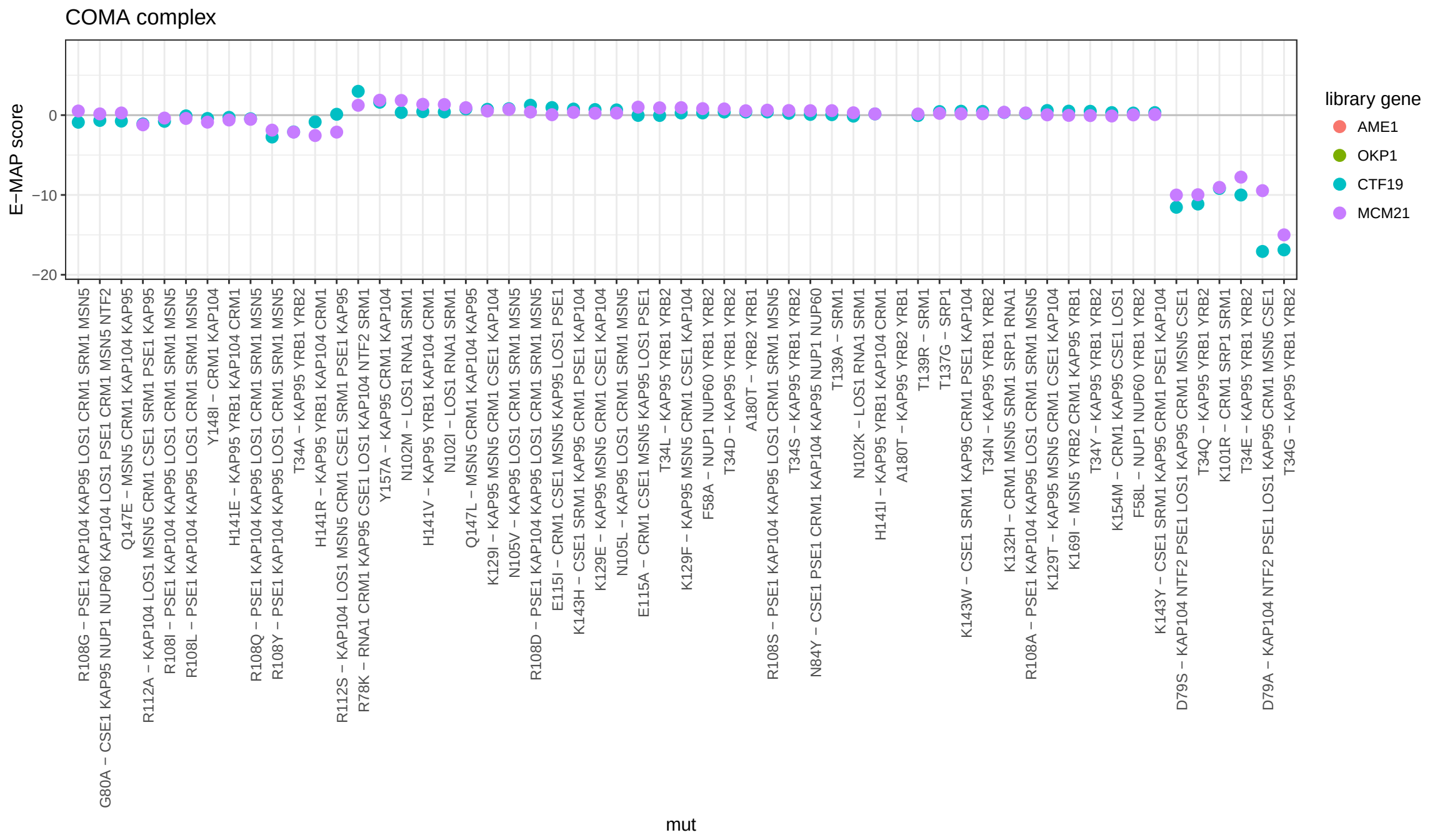

Cdc73p/Paf1p complex
E−MAP score
0
−10
−20
mut
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
T139A – SRM1
H141I – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
T34A – KAP95 YRB1 YRB2
T139R – SRM1
Y157A – KAP95 CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
N102K – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34N – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
library gene
RTF1
LEO1
CDC73
CCR4
PAF1
CTR9
HPR1

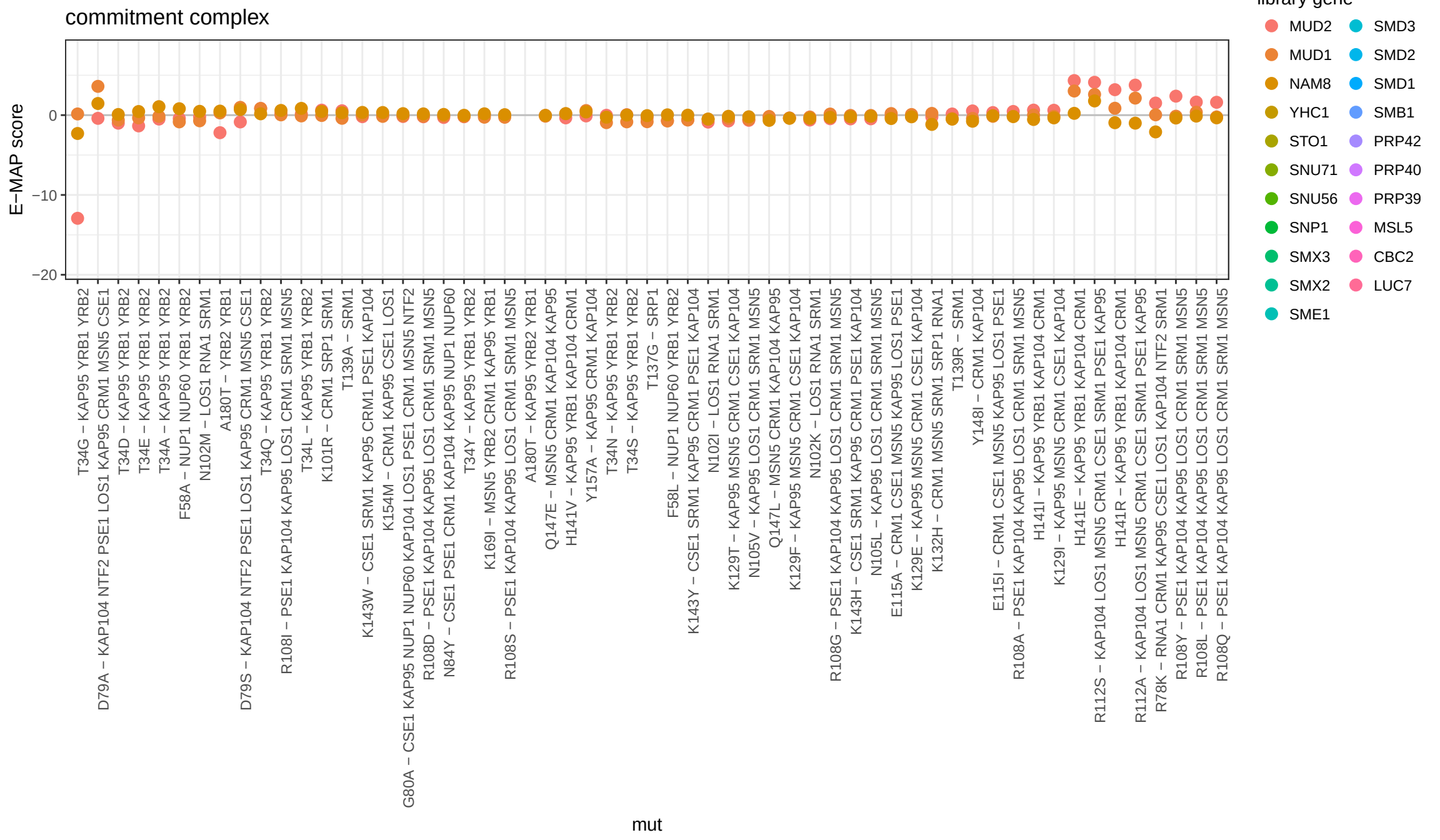

chromatin accessibility complex
E−MAP score
0
−10
−20
library gene
DPB4
DLS1
ISW2
ITC1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
N102M – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
H141I – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141E – KAP95 YRB1 KAP104 CRM1
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102K – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141V – KAP95 YRB1 KAP104 CRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
Y157A – KAP95 CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Q147E – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34A – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
mut

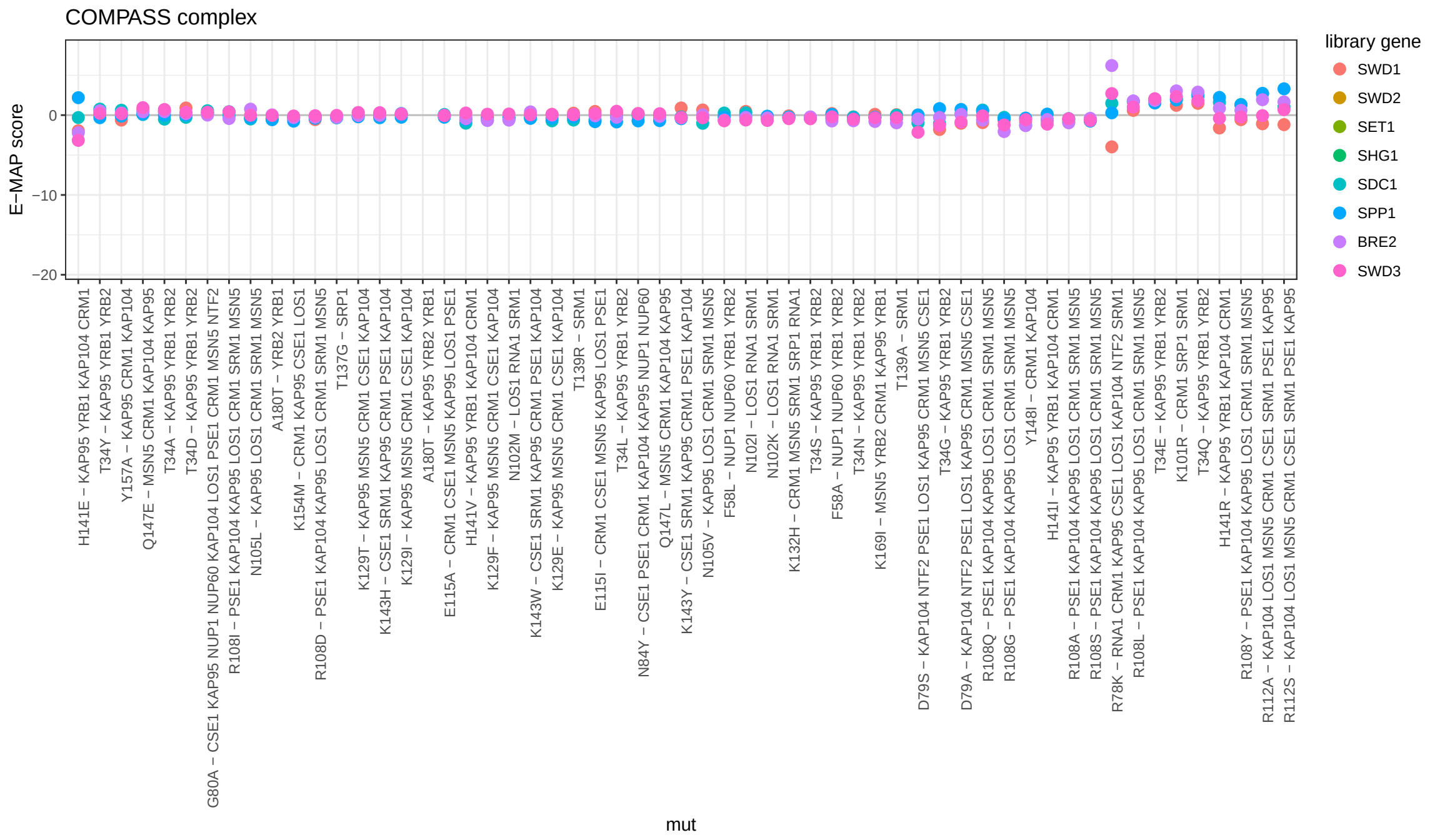

chromatin assembly complex
E−MAP score
0
−10
−20
mut
library gene
CAC2
MSI1
RLF2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y148I – CRM1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
N102K – LOS1 RNA1 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
T34Q – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
T137G – SRP1
T34E – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
A180T – YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2

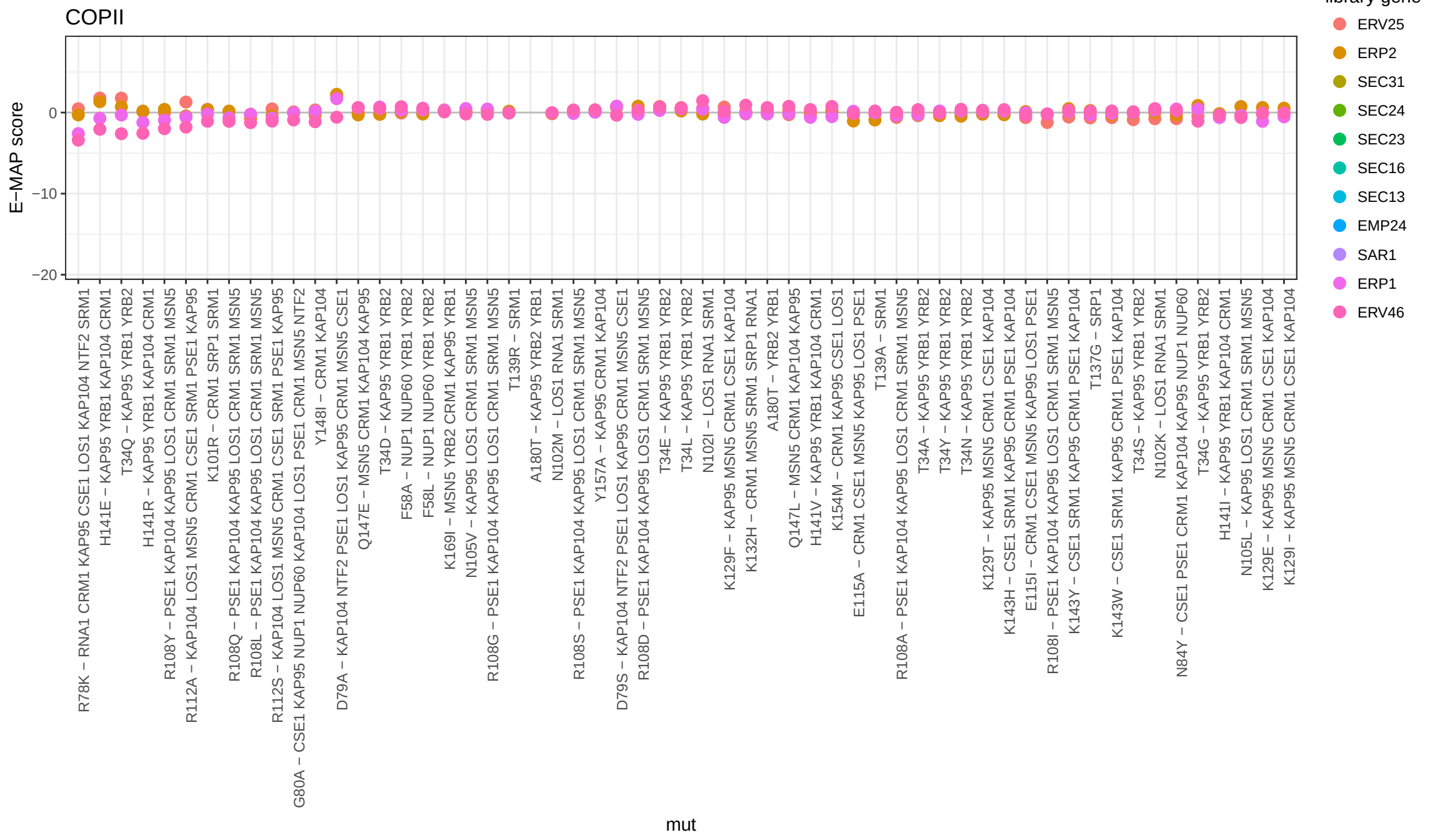

Chs5p/Arf−1binding proteins (ChAPs)
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
T137G – SRP1
H141E – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
N102M – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
A180T – YRB2 YRB1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102K – LOS1 RNA1 SRM1
T34G – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
library gene
ARF1
CHS6
CHS5
BUD7
BCH1
BCH2

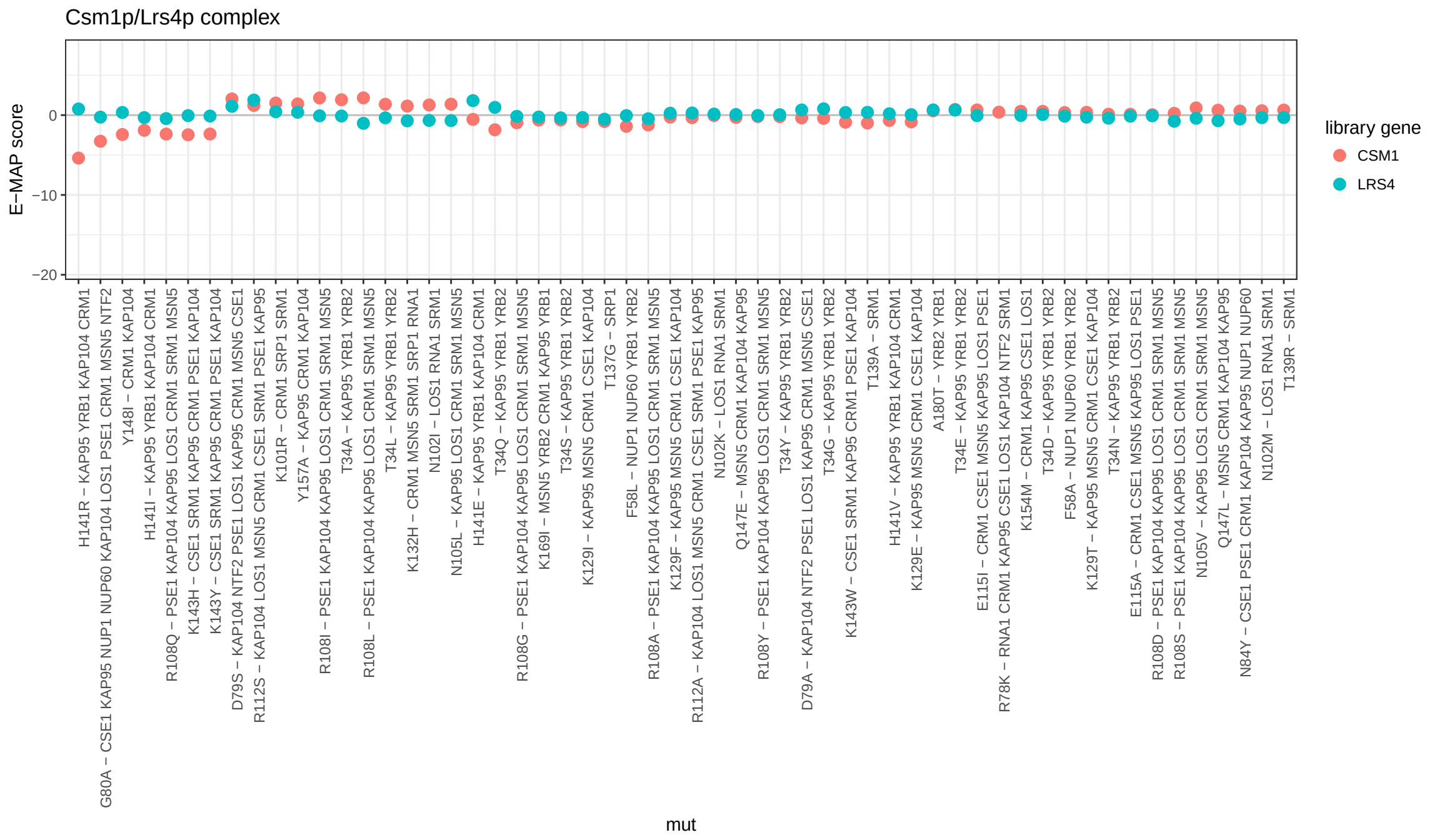

Chz1p/Htz1p/Htb1p complex
E−MAP score
0
−10
−20
mut
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
T34Q – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K101R – CRM1 SRP1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
T34A – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
T139R – SRM1
A180T – YRB2 YRB1
N102M – LOS1 RNA1 SRM1
N102I – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K154M – CRM1 KAP95 CSE1 LOS1
T34D – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
library gene
HTZ1
CHZ1
HTB1

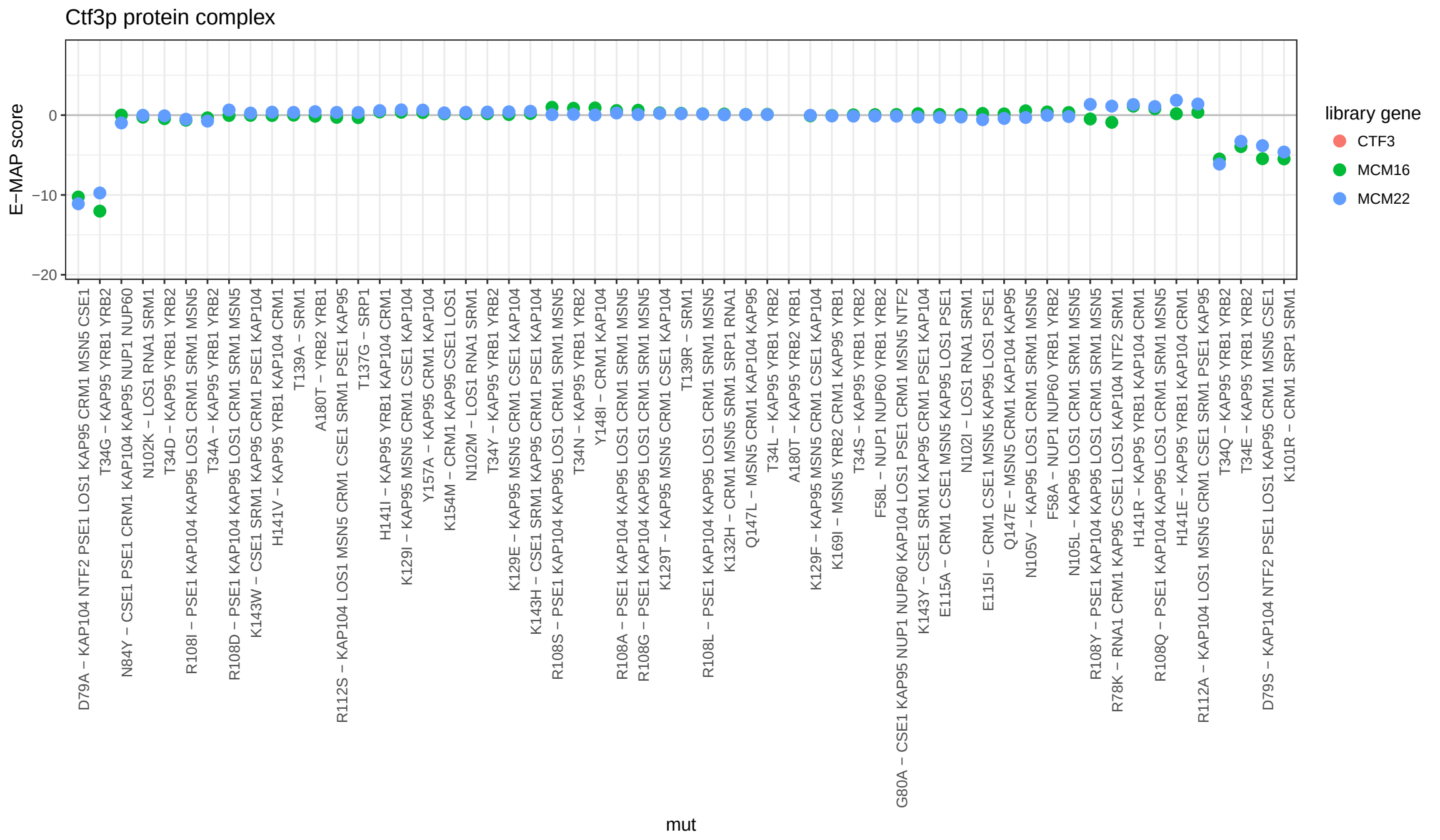

COMA complex
E−MAP score
0
−10
−20
mut
library gene
AME1
OKP1
CTF19
MCM21
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
H141E – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
Y157A – KAP95 CRM1 KAP104
N102M – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
N102I – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139A – SRM1
N102K – LOS1 RNA1 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
A180T – KAP95 YRB2 YRB1
T139R – SRM1
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Y – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
F58L – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2

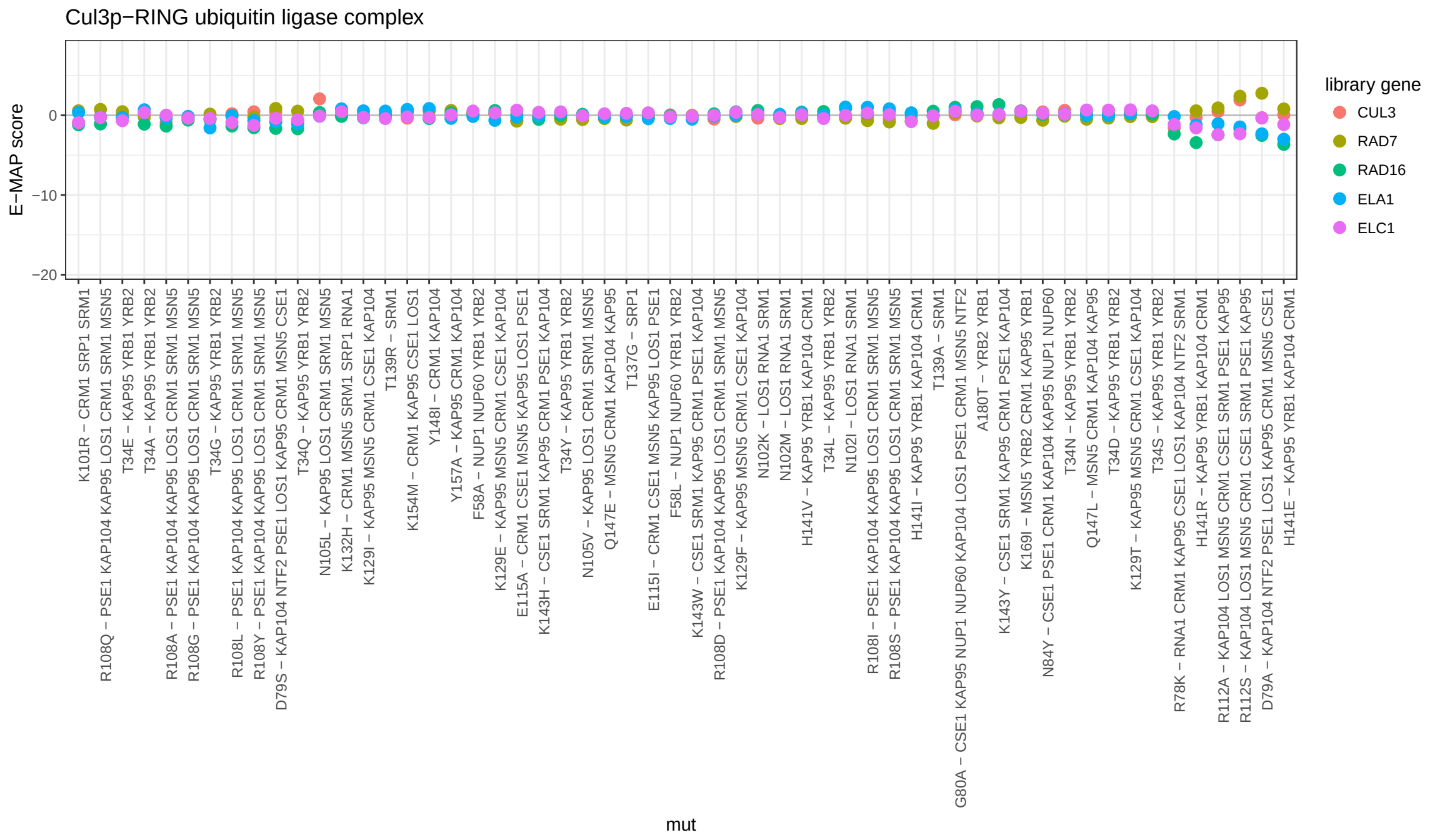

commitment complex
E−MAP score
0
−10
−20
mut
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34D – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T139A – SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139R – SRM1
Y148I – CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
library gene
MUD2
MUD1
NAM8
YHC1
STO1
SNU71
SNU56
SNP1
SMX3
SMX2
SME1
SMD3
SMD2
SMD1
SMB1
PRP42
PRP40
PRP39
MSL5
CBC2
LUC7

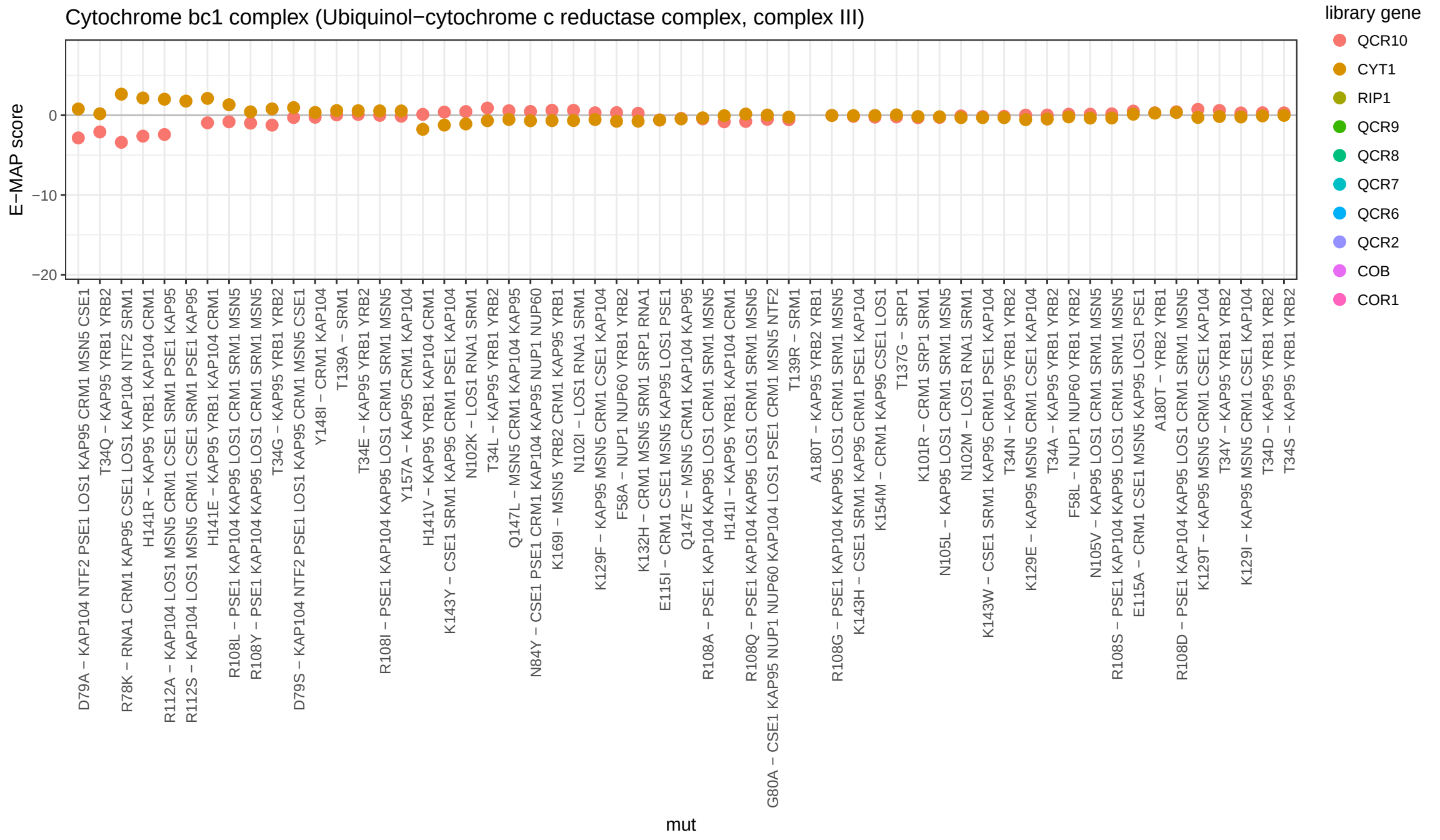

COMPASS complex
E−MAP score
0
−10
−20
mut
library gene
SWD1
SWD2
SET1
SHG1
SDC1
SPP1
BRE2
SWD3
H141E – KAP95 YRB1 KAP104 CRM1
T34Y – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141V – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147L – MSN5 CRM1 KAP104 KAP95
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
N102K – LOS1 RNA1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34S – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139A – SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

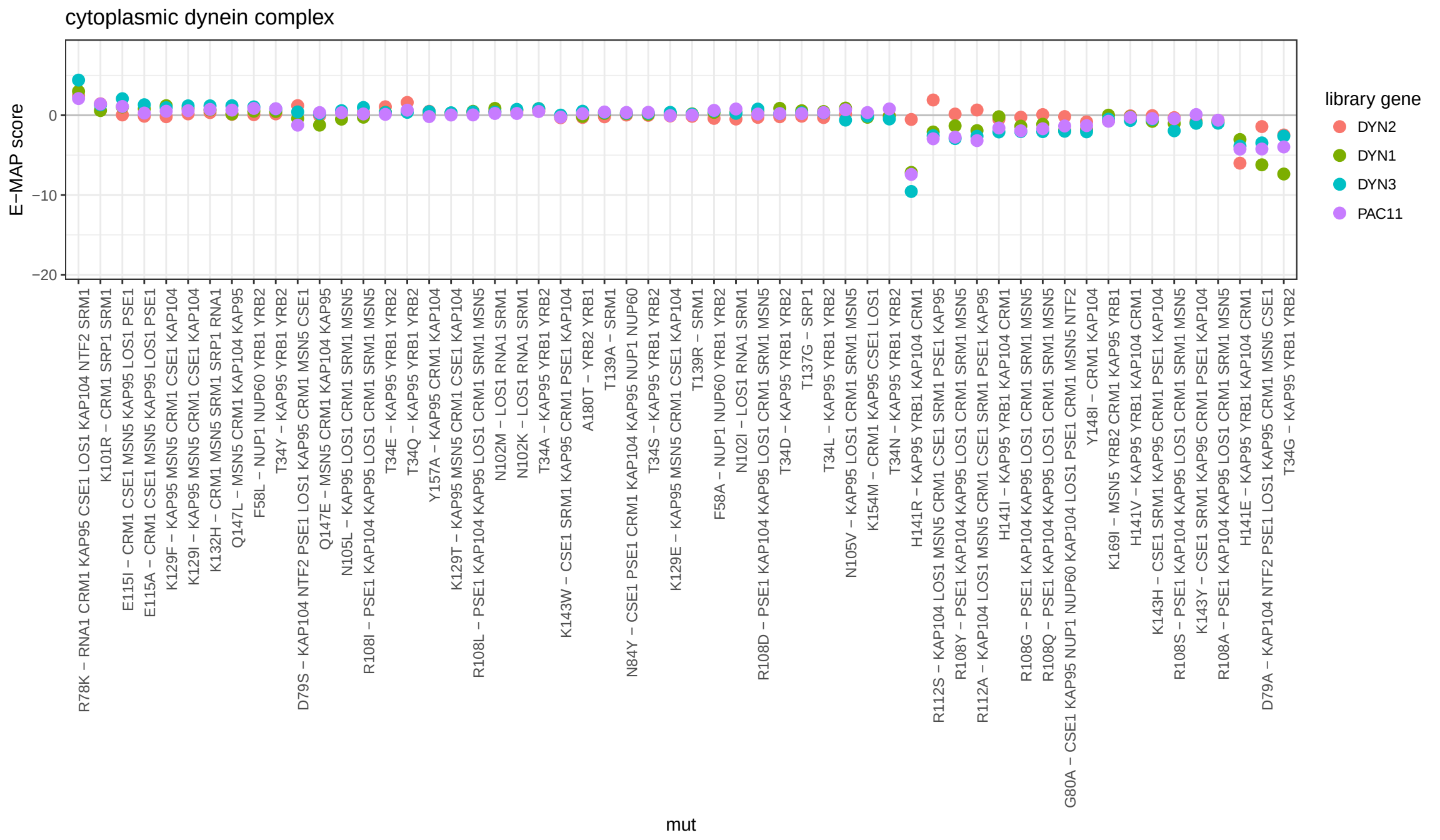

COPII
E−MAP score
0
−10
−20
mut
library gene
ERV25
ERP2
SEC31
SEC24
SEC23
SEC16
SEC13
EMP24
SAR1
ERP1
ERV46
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Q147E – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
A180T – KAP95 YRB2 YRB1
N102M – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
A180T – YRB2 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34G – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104

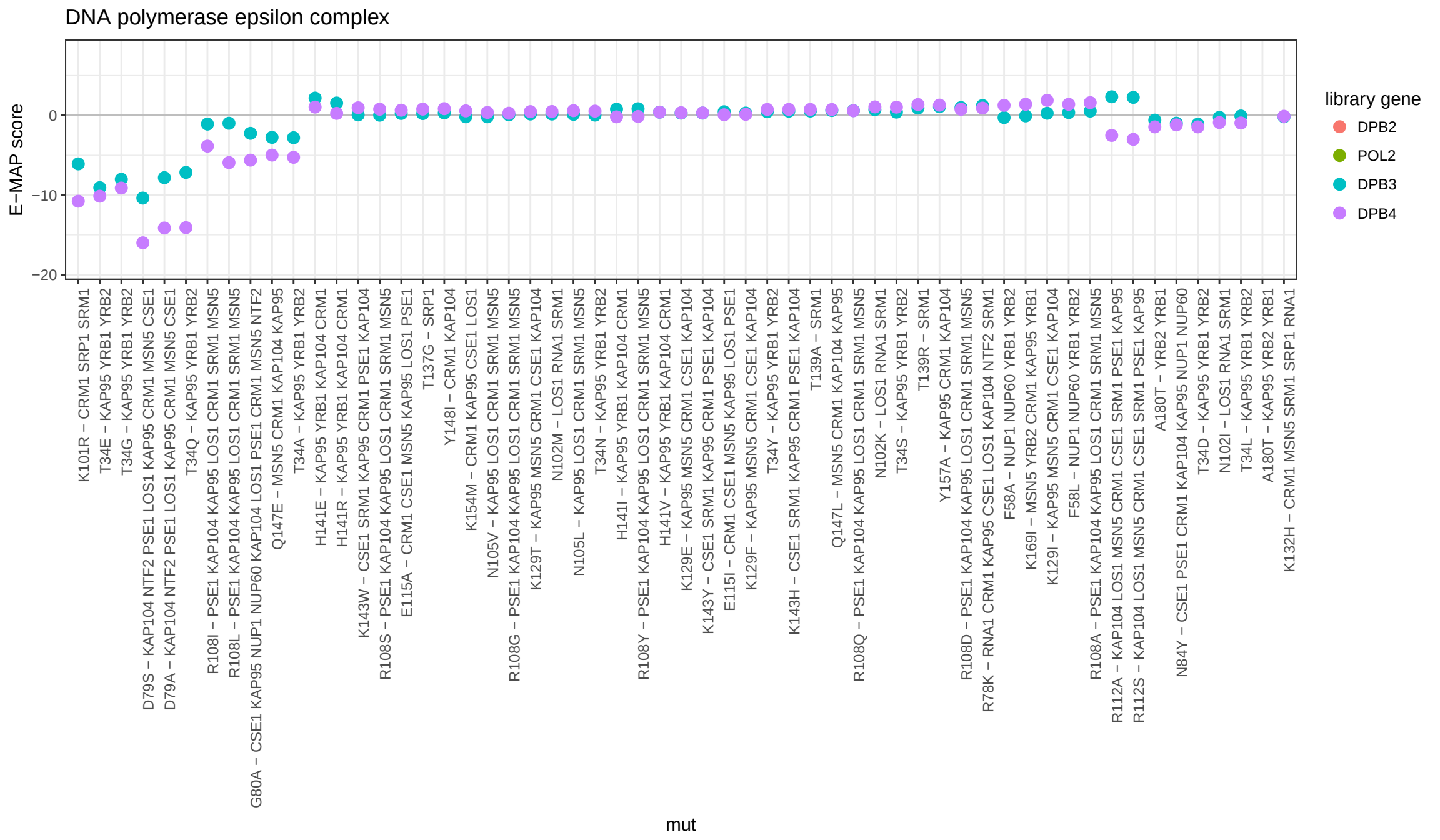

Csm1p/Lrs4p complex
E−MAP score
0
−10
−20
library gene
CSM1
LRS4
H141R – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102K – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
T34E – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
T139R – SRM1
mut

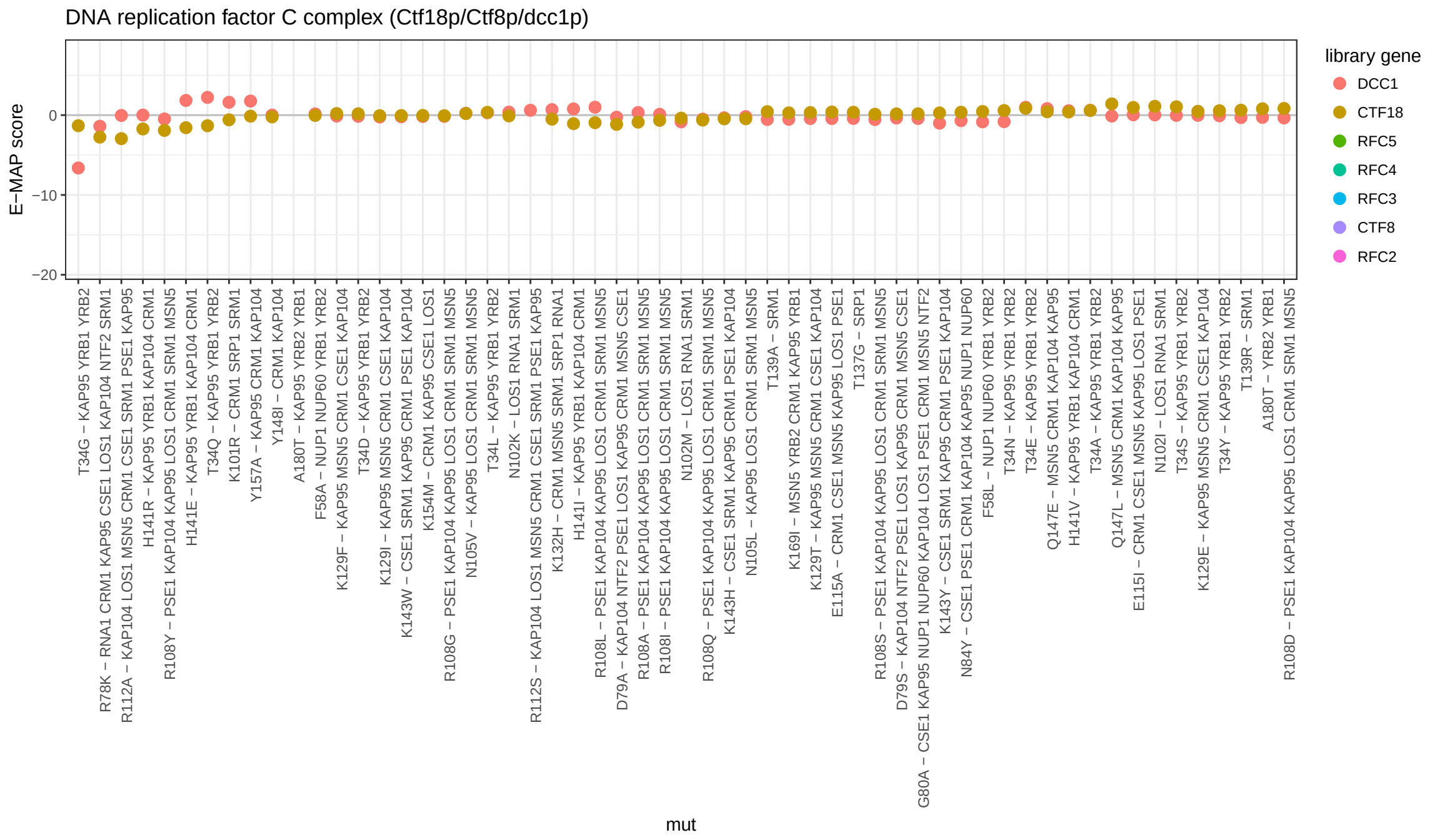

Ctf3p protein complex
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102K – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
A180T – YRB2 YRB1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T137G – SRP1
H141I – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N102M – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
library gene
CTF3
MCM16
MCM22

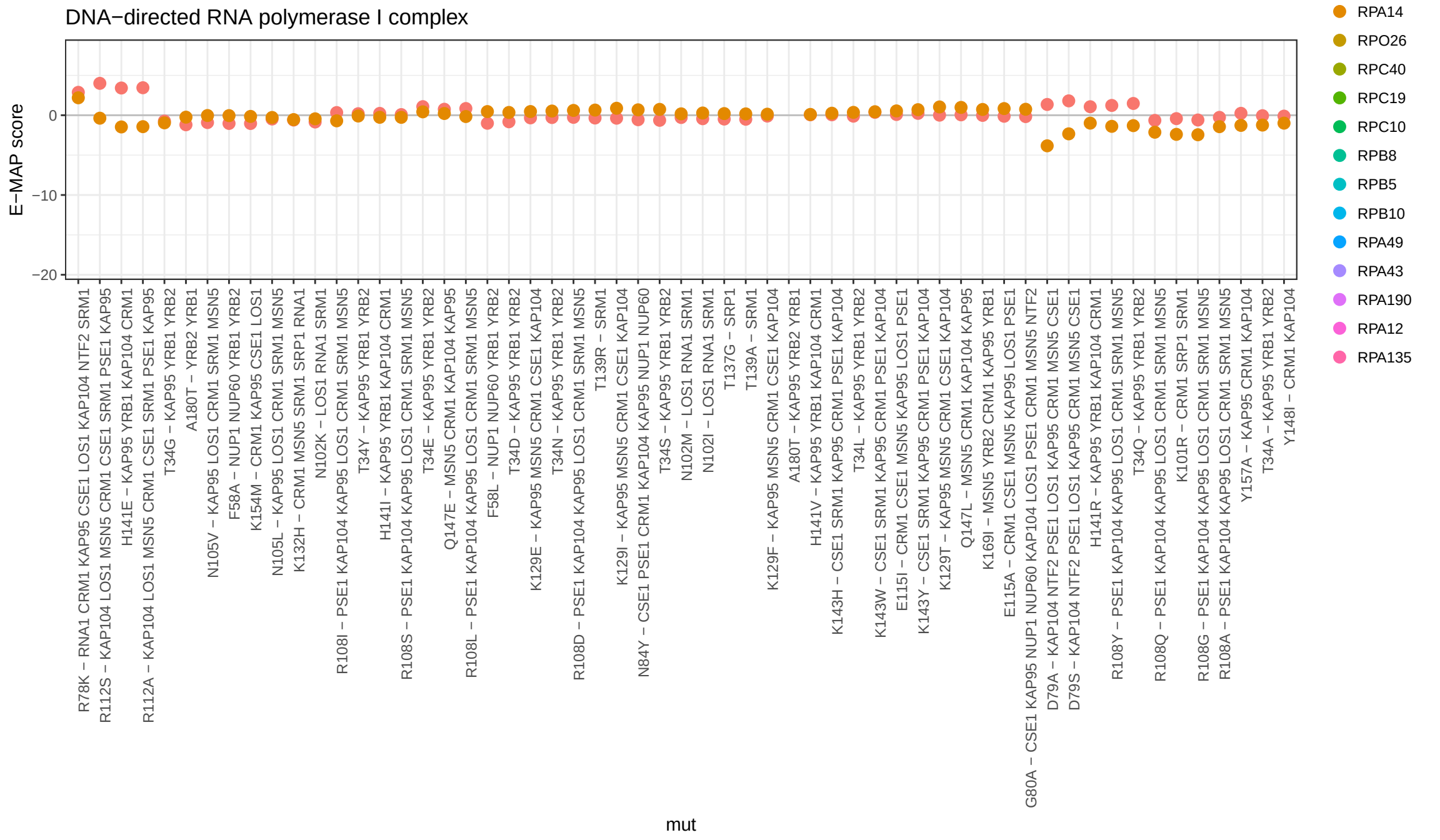

Cul3p−RING ubiquitin ligase complex
E−MAP score
0
−10
−20
library gene
CUL3
RAD7
RAD16
ELA1
ELC1
K101R – CRM1 SRP1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
Y157A – KAP95 CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
N102M – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
A180T – YRB2 YRB1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
mut

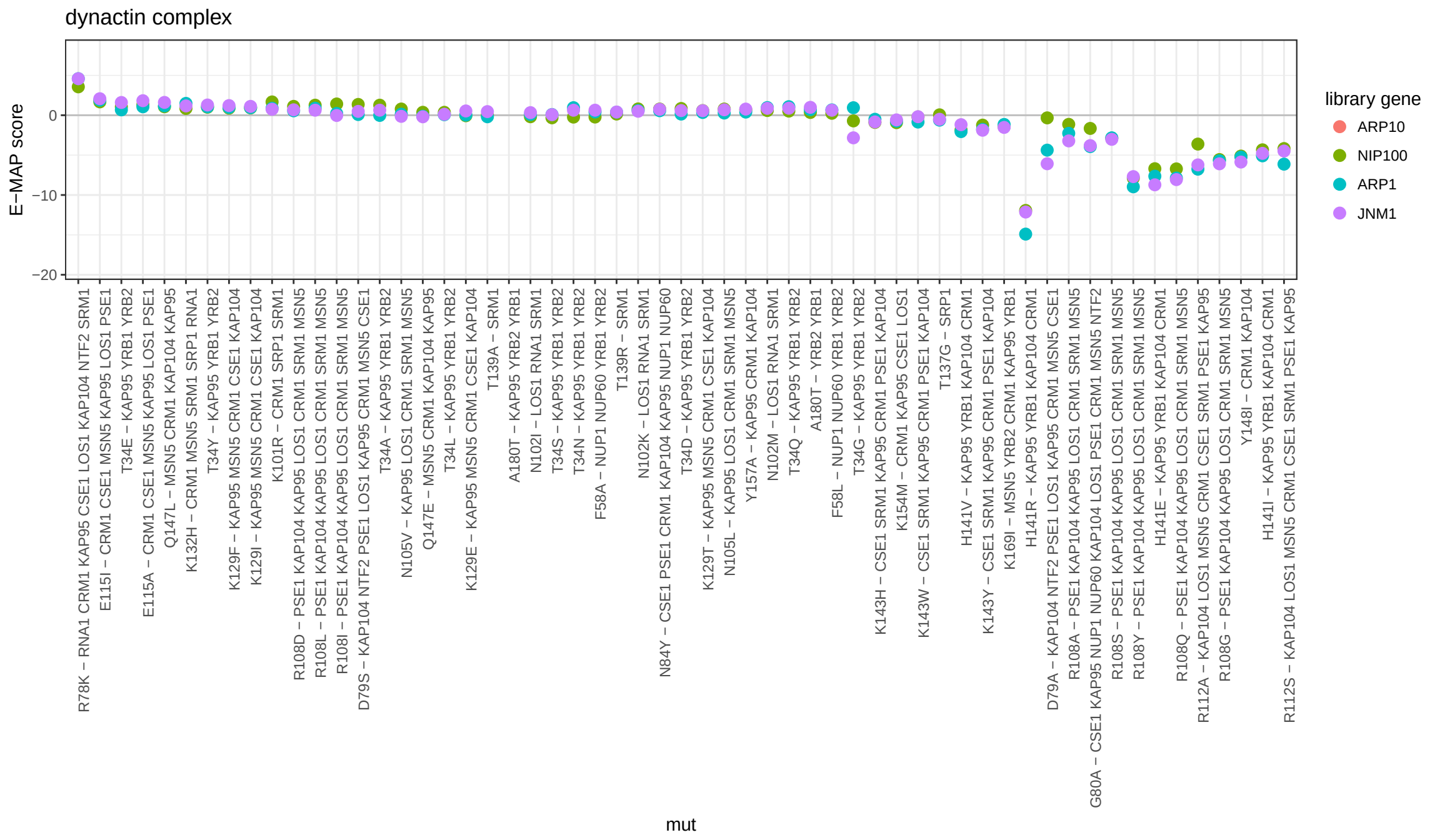

Cytochrome bc1 complex (Ubiquinol−cytochrome c reductase complex, complex III)
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y148I – CRM1 KAP104
T139A – SRM1
T34E – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102I – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
A180T – KAP95 YRB2 YRB1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
T137G – SRP1
K101R – CRM1 SRP1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
library gene
QCR10
CYT1
RIP1
QCR9
QCR8
QCR7
QCR6
QCR2
COB
COR1

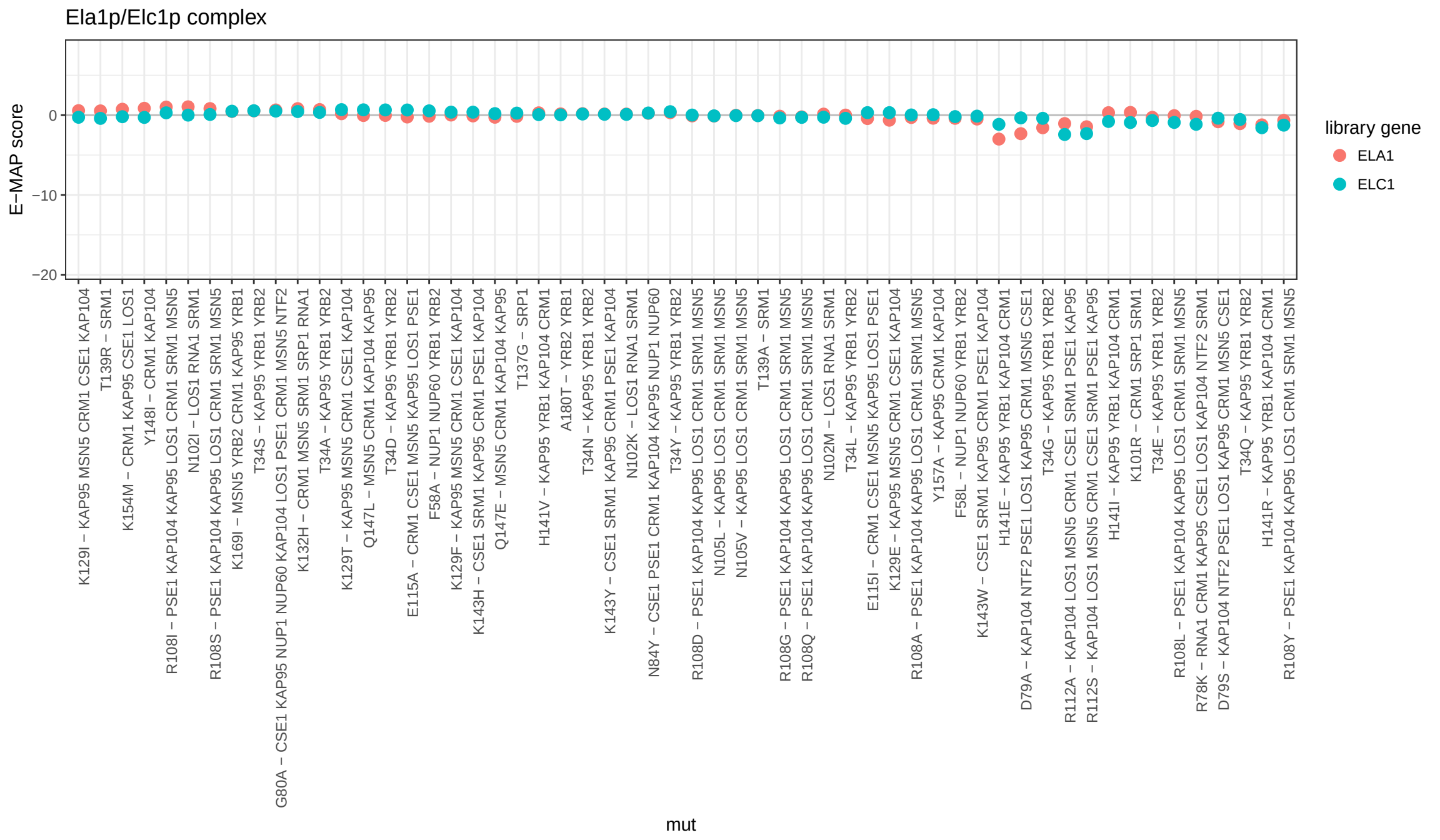

cytoplasmic dynein complex
E−MAP score
0
−10
−20
library gene
DYN2
DYN1
DYN3
PAC11
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K101R – CRM1 SRP1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Q147E – MSN5 CRM1 KAP104 KAP95
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
N102K – LOS1 RNA1 SRM1
T34A – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
T139A – SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34S – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
T137G – SRP1
T34L – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T34N – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
mut

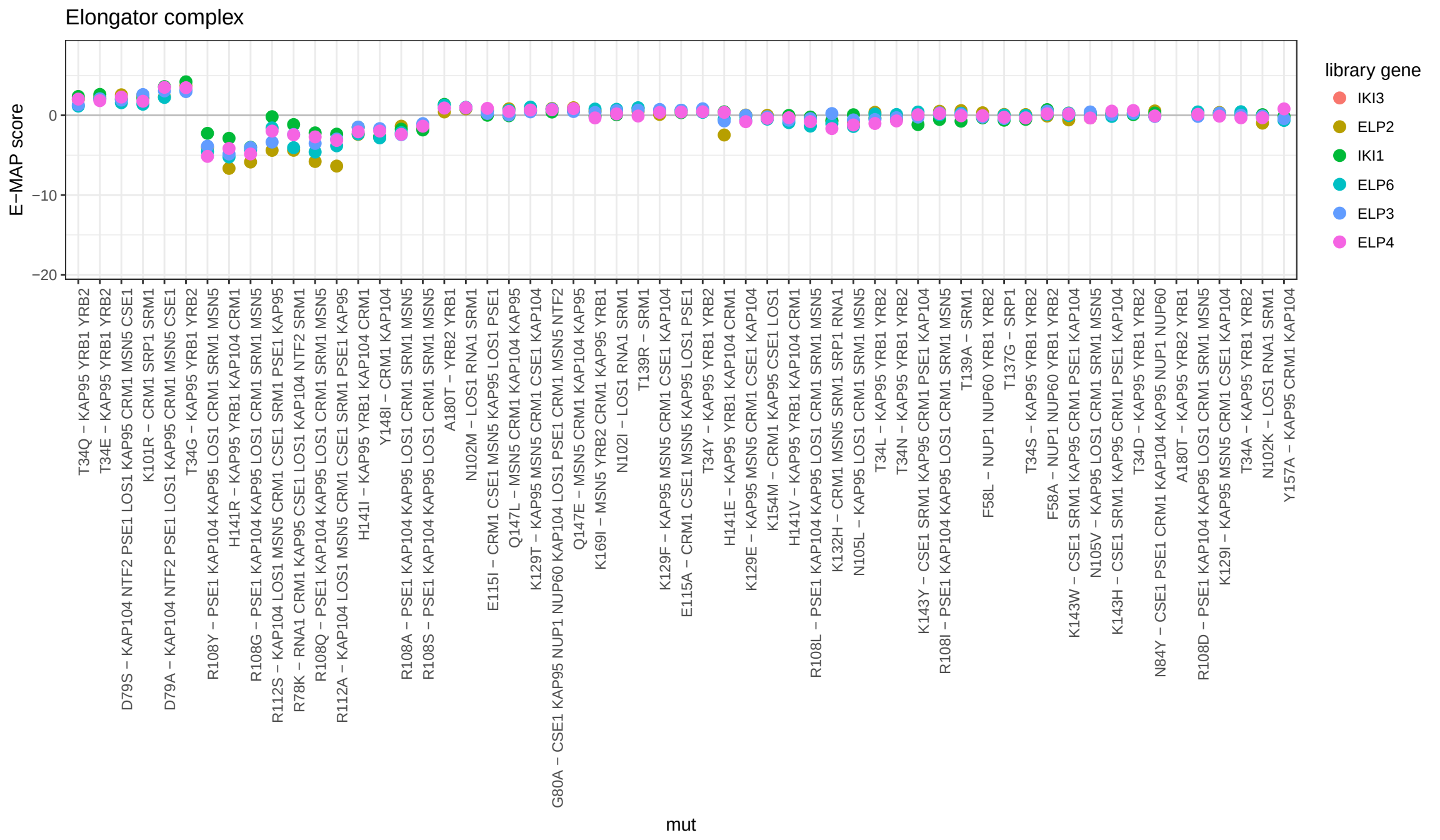

DNA polymerase epsilon complex
E−MAP score
0
−10
−20
mut
library gene
DPB2
POL2
DPB3
DPB4
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
Y148I – CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
T139R – SRM1
Y157A – KAP95 CRM1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
A180T – YRB2 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1

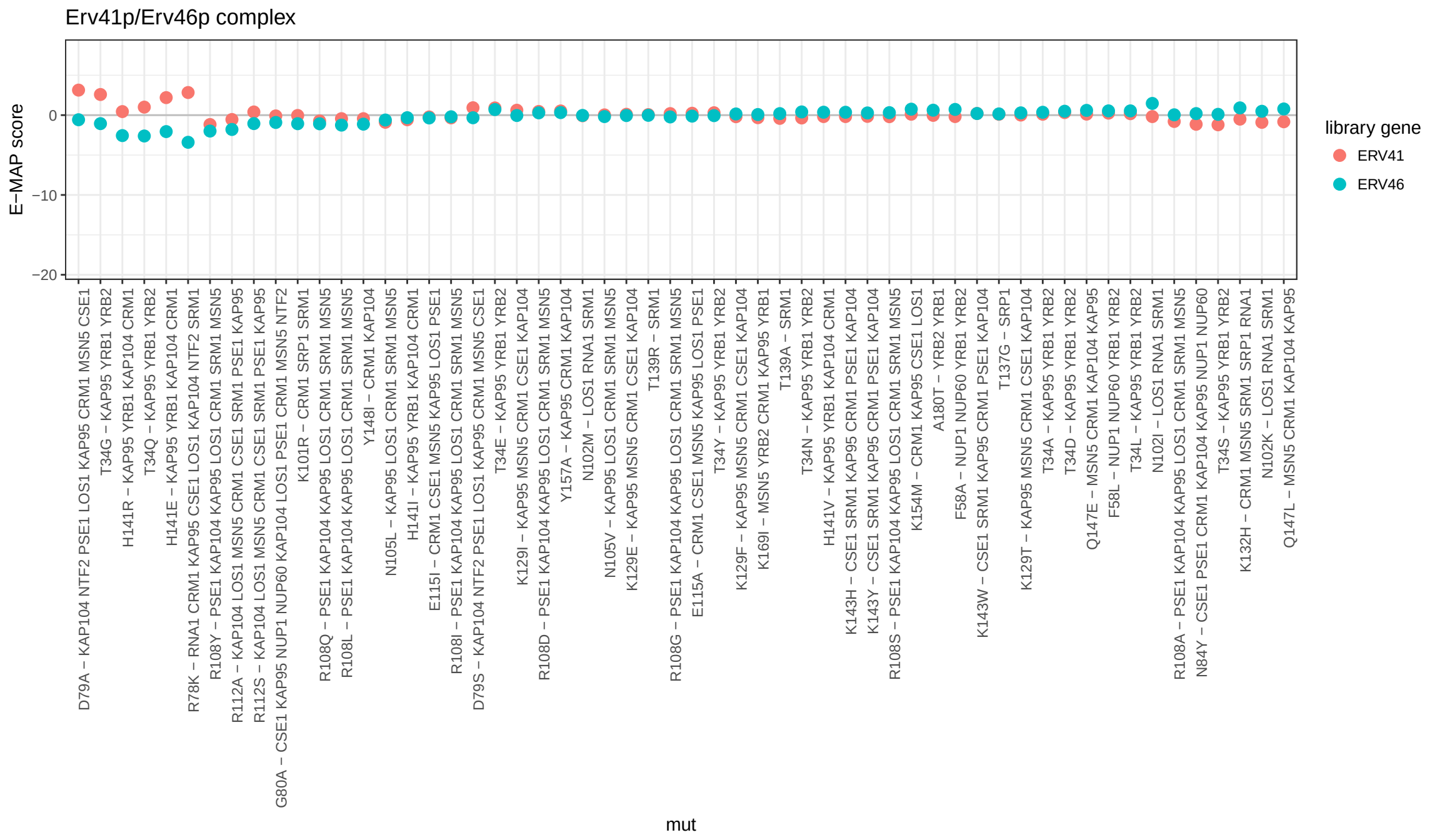

DNA replication factor C complex (Ctf18p/Ctf8p/dcc1p)
E−MAP score
0
−10
−20
mut
library gene
DCC1
CTF18
RFC5
RFC4
RFC3
CTF8
RFC2
T34G – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
Y148I – CRM1 KAP104
A180T – KAP95 YRB2 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58L – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
T139R – SRM1
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

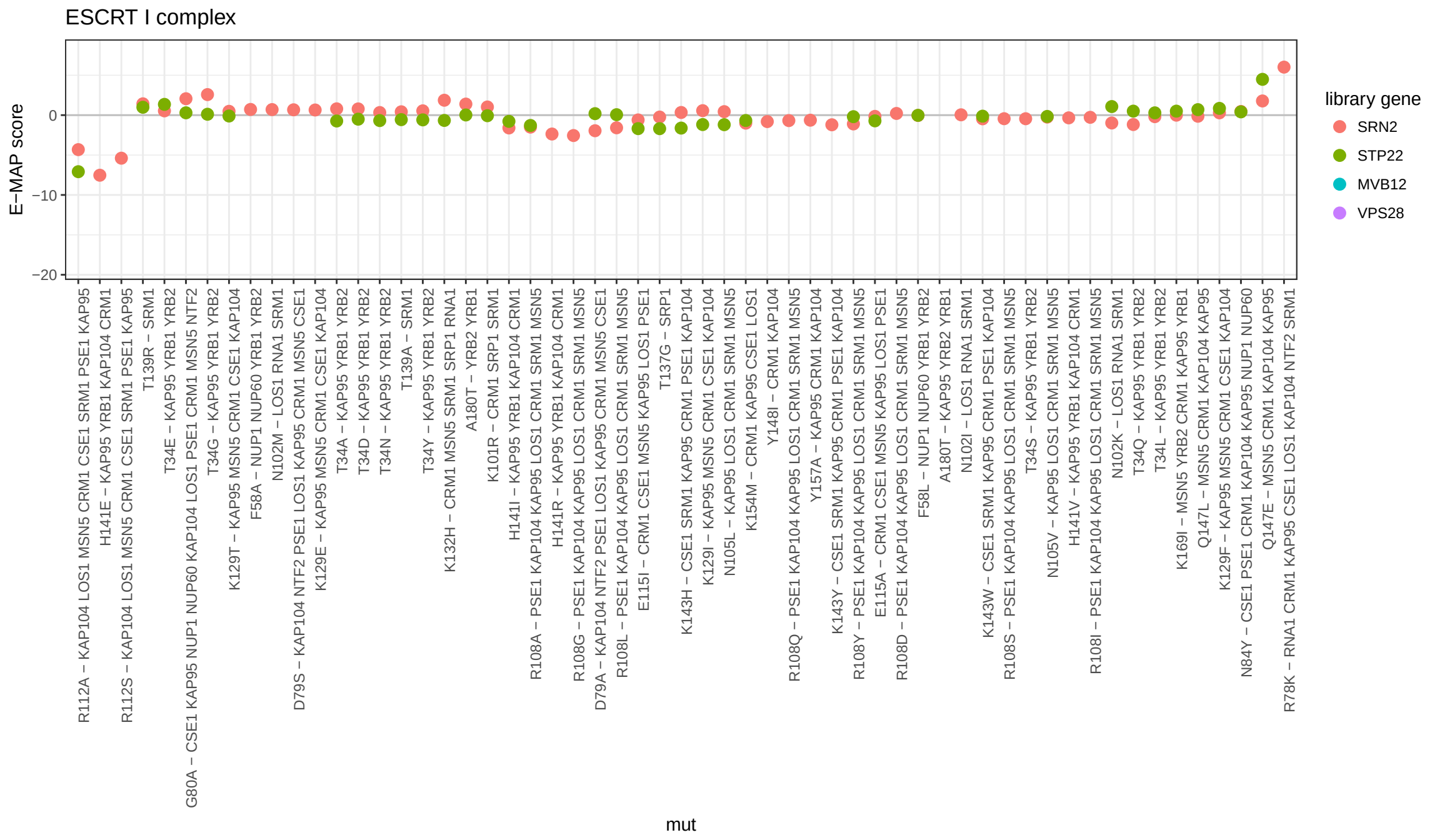

DNA−directed RNA polymerase I complex
E−MAP score
0
−10
−20
mut
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102K – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34S – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
N102I – LOS1 RNA1 SRM1
T137G – SRP1
T139A – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
T34A – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
RPA14
RPO26
RPC40
RPC19
RPC10
RPB8
RPB5
RPB10
RPA49
RPA43
RPA190
RPA12
RPA135

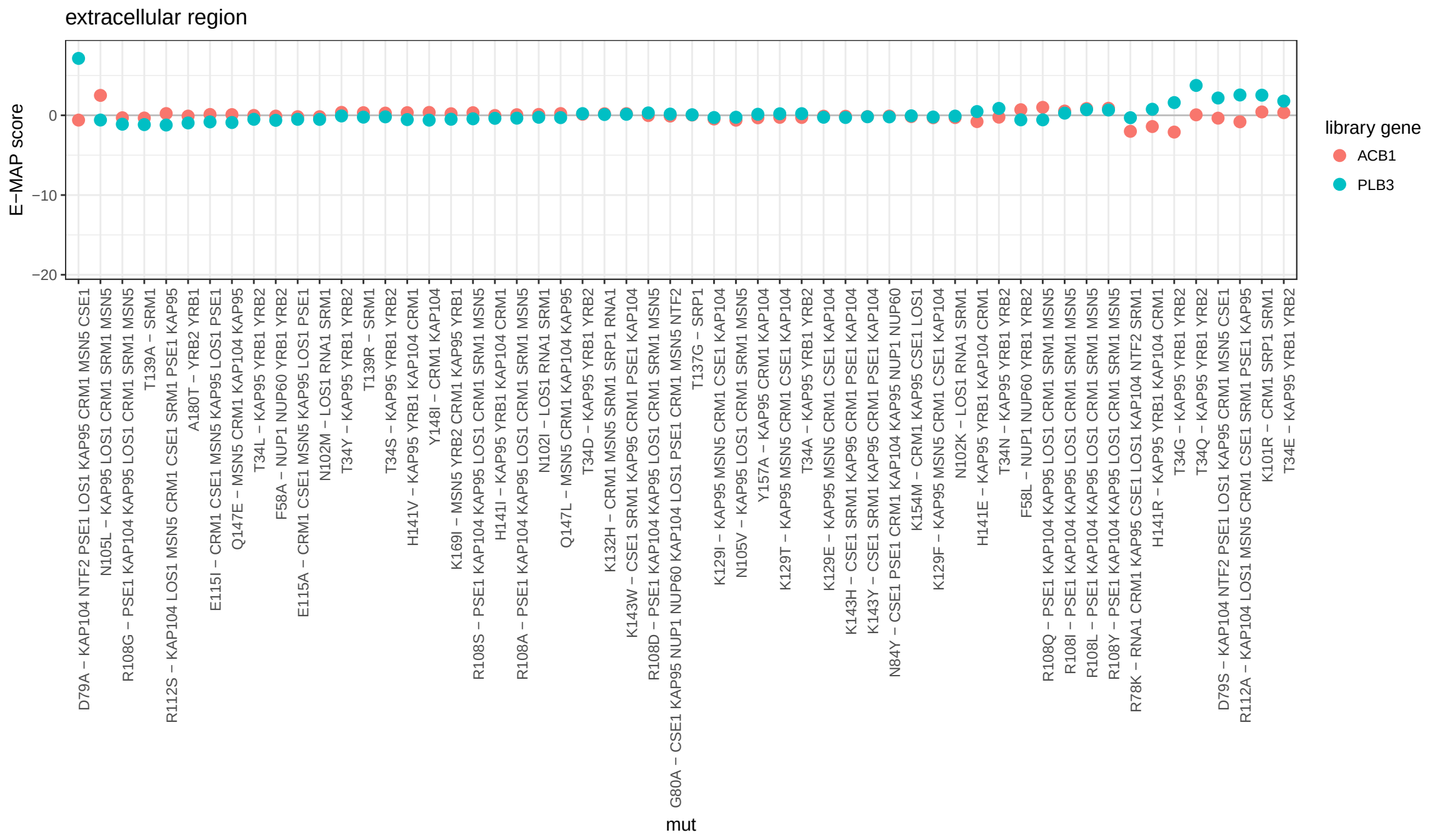

dynactin complex
E−MAP score
0
−10
−20
library gene
ARP10
NIP100
ARP1
JNM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34E – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K101R – CRM1 SRP1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34A – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
A180T – KAP95 YRB2 YRB1
N102I – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T139R – SRM1
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
N102M – LOS1 RNA1 SRM1
T34Q – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
F58L – NUP1 NUP60 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
H141R – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
mut

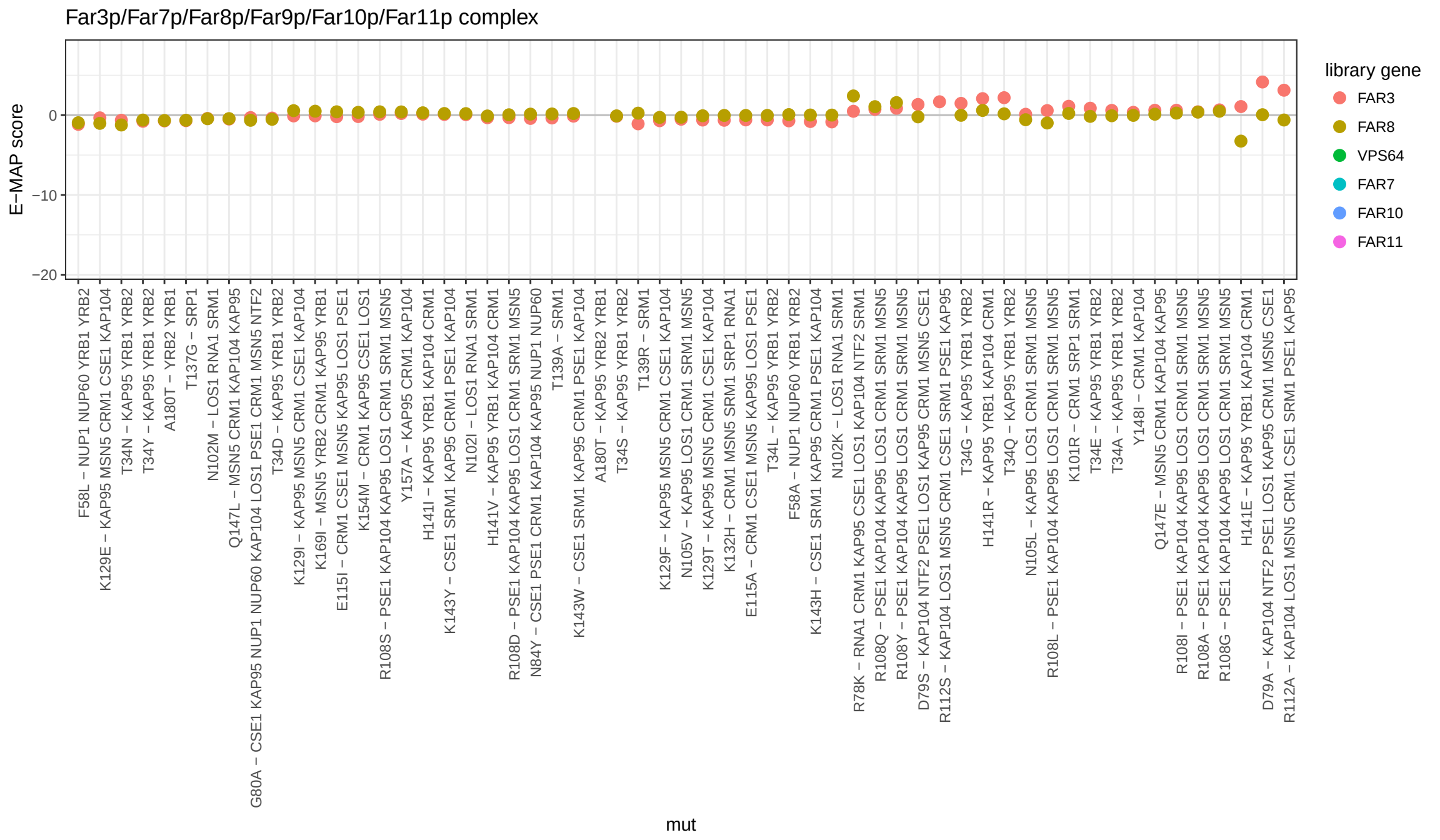

Ela1p/Elc1p complex
E−MAP score
0
−10
−20
mut
library gene
ELA1
ELC1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34A – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
A180T – YRB2 YRB1
T34N – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

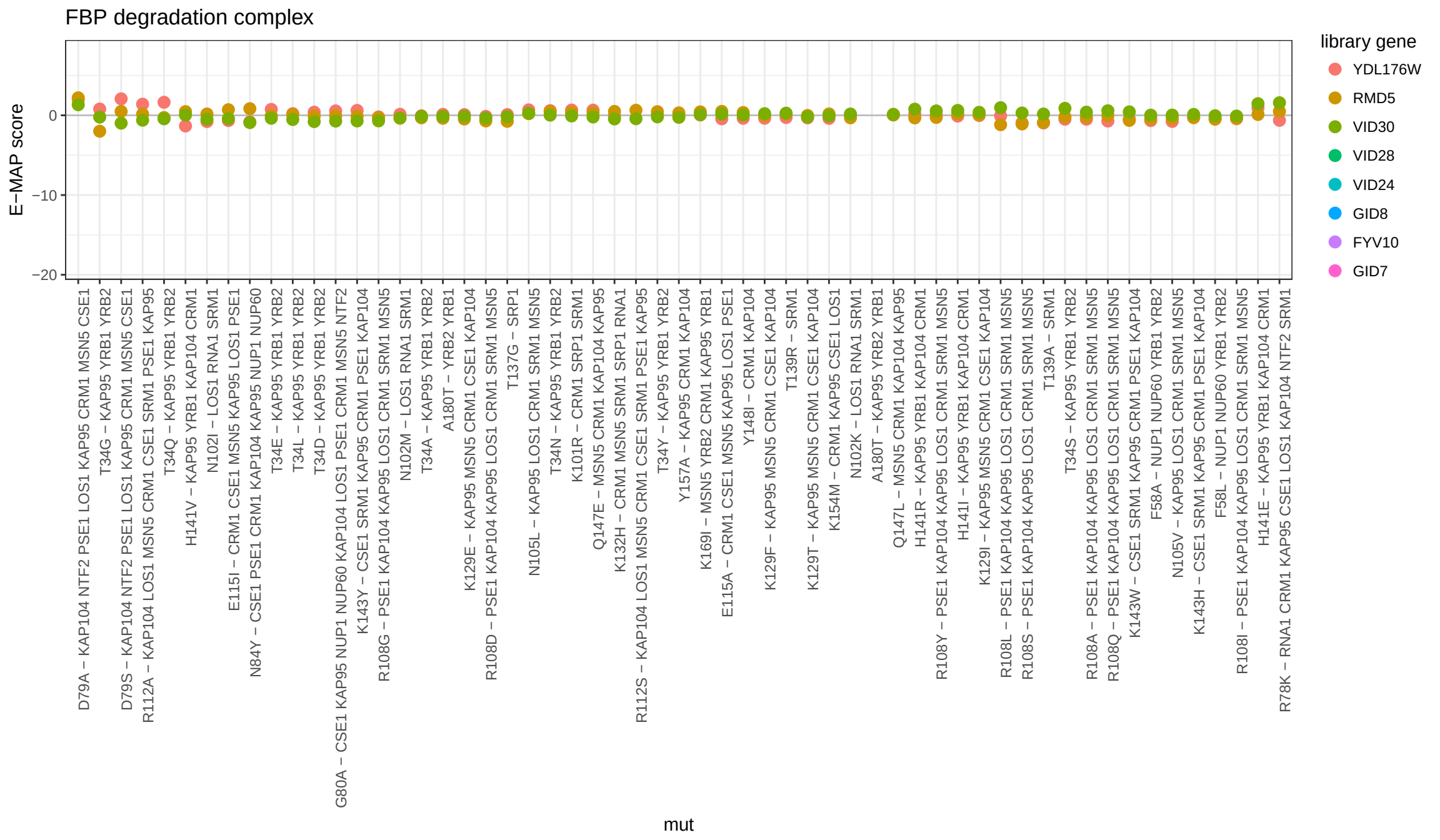

Elongator complex
E−MAP score
0
−10
−20
mut
library gene
IKI3
ELP2
IKI1
ELP6
ELP3
ELP4
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
N102M – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102I – LOS1 RNA1 SRM1
T139R – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
H141V – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
T34S – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
A180T – KAP95 YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
Y157A – KAP95 CRM1 KAP104

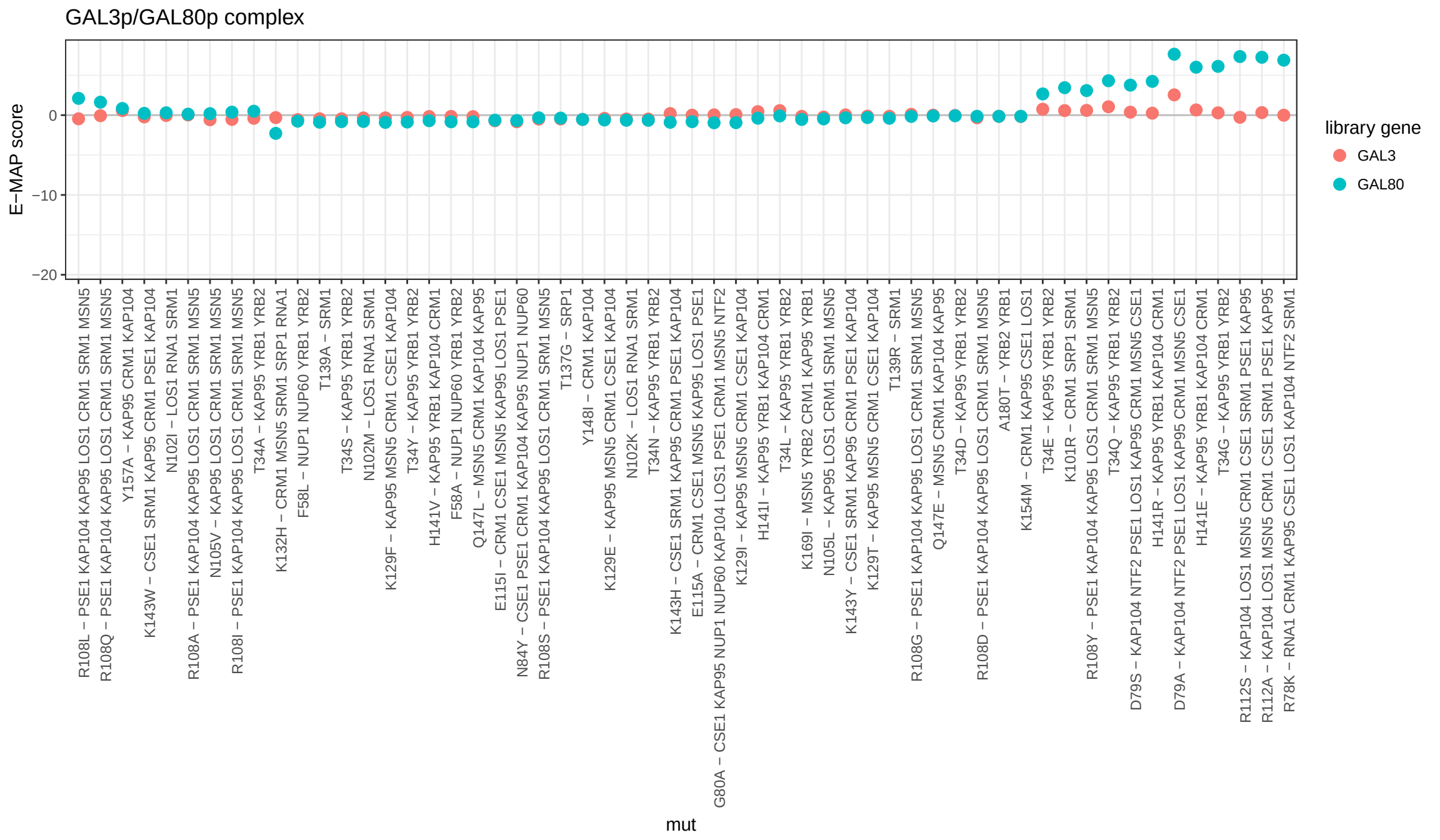

Erv41p/Erv46p complex
E−MAP score
0
−10
−20
library gene
ERV41
ERV46
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K101R – CRM1 SRP1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
N102M – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139A – SRM1
T34N – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
A180T – YRB2 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34S – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102K – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
mut

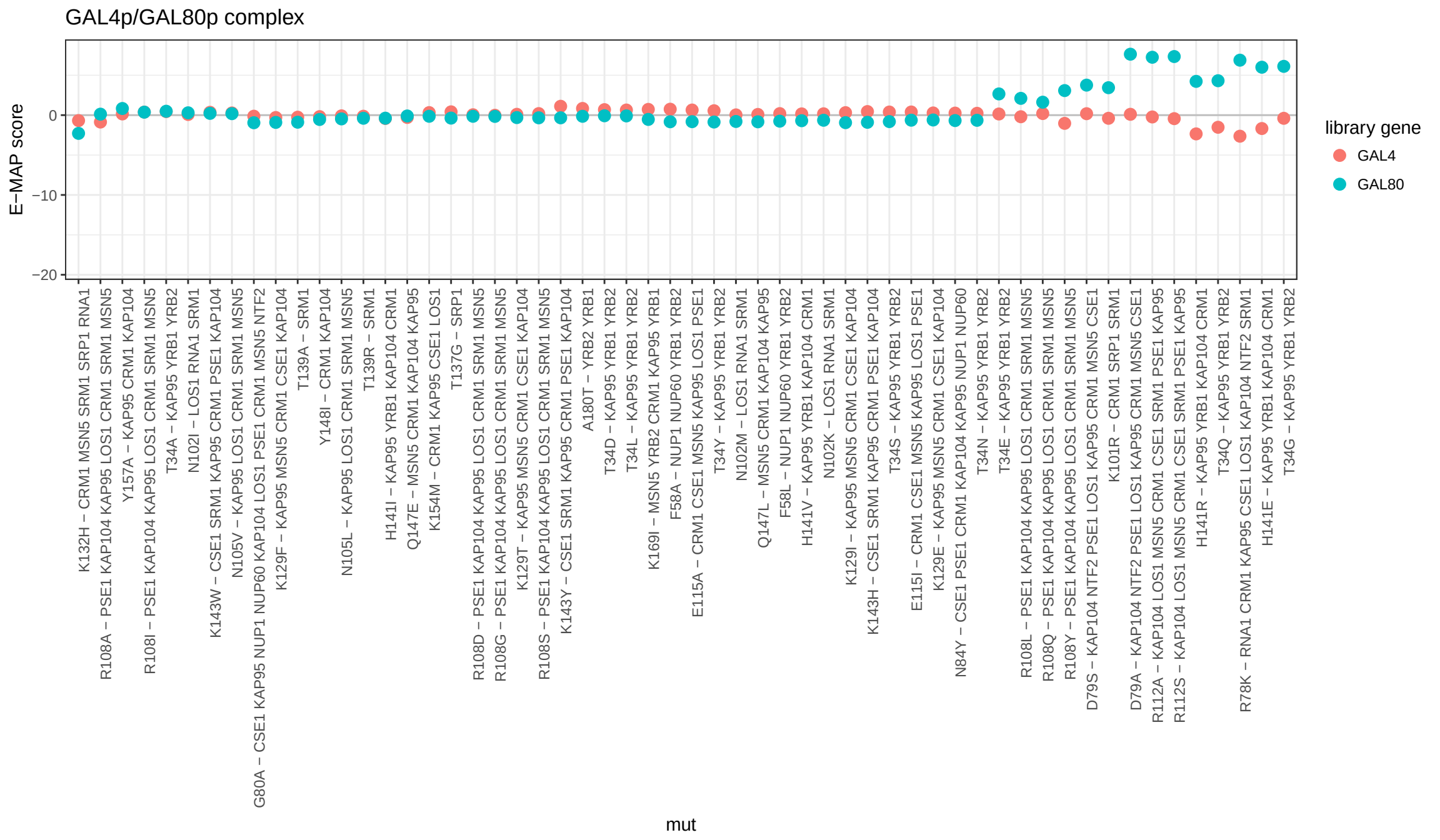

ESCRT I complex
E−MAP score
0
−10
−20
mut
library gene
SRN2
STP22
MVB12
VPS28
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T139R – SRM1
T34E – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34G – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T139A – SRM1
T34Y – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
A180T – YRB2 YRB1
K101R – CRM1 SRP1 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
N102I – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
T34Q – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147E – MSN5 CRM1 KAP104 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

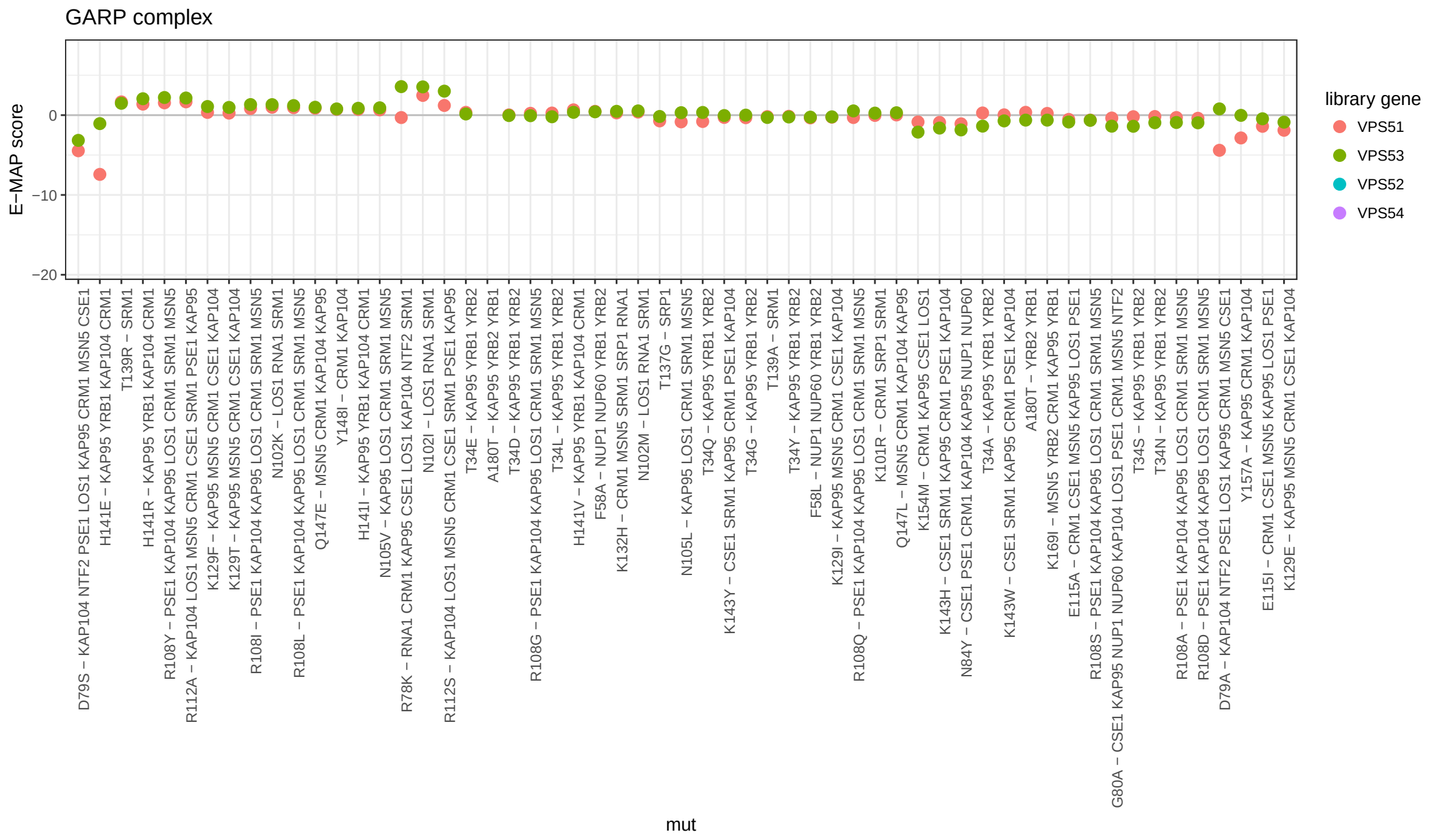

extracellular region
E−MAP score
0
−10
−20
library gene
ACB1
PLB3
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
A180T – YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102M – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
T139R – SRM1
T34S – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T137G – SRP1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K154M – CRM1 KAP95 CSE1 LOS1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
T34N – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
mut

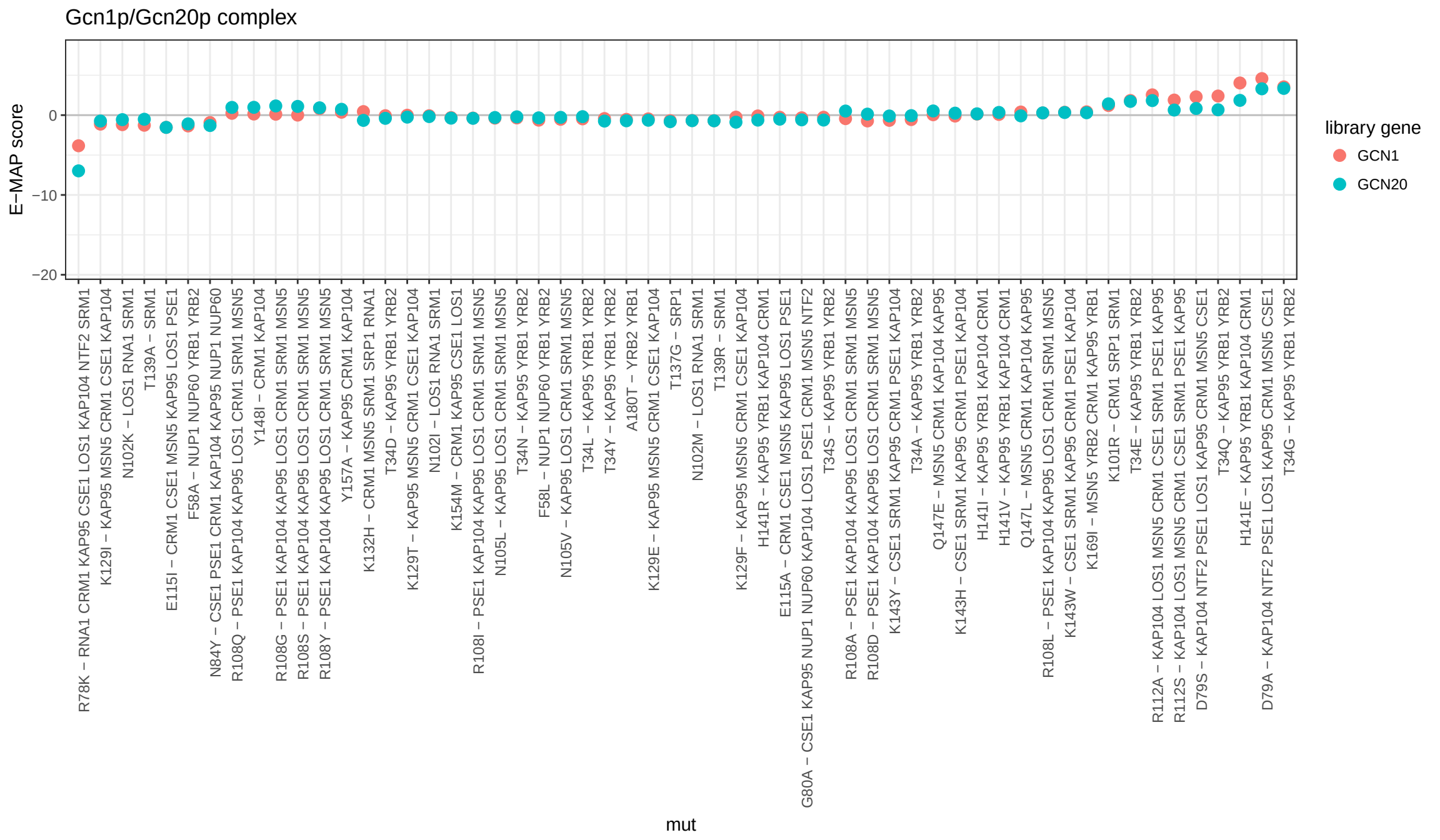

Far3p/Far7p/Far8p/Far9p/Far10p/Far11p complex
E−MAP score
0
−10
−20
mut
library gene
FAR3
FAR8
VPS64
FAR7
FAR10
FAR11
F58L – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T137G – SRP1
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K154M – CRM1 KAP95 CSE1 LOS1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139A – SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – KAP95 YRB2 YRB1
T34S – KAP95 YRB1 YRB2
T139R – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

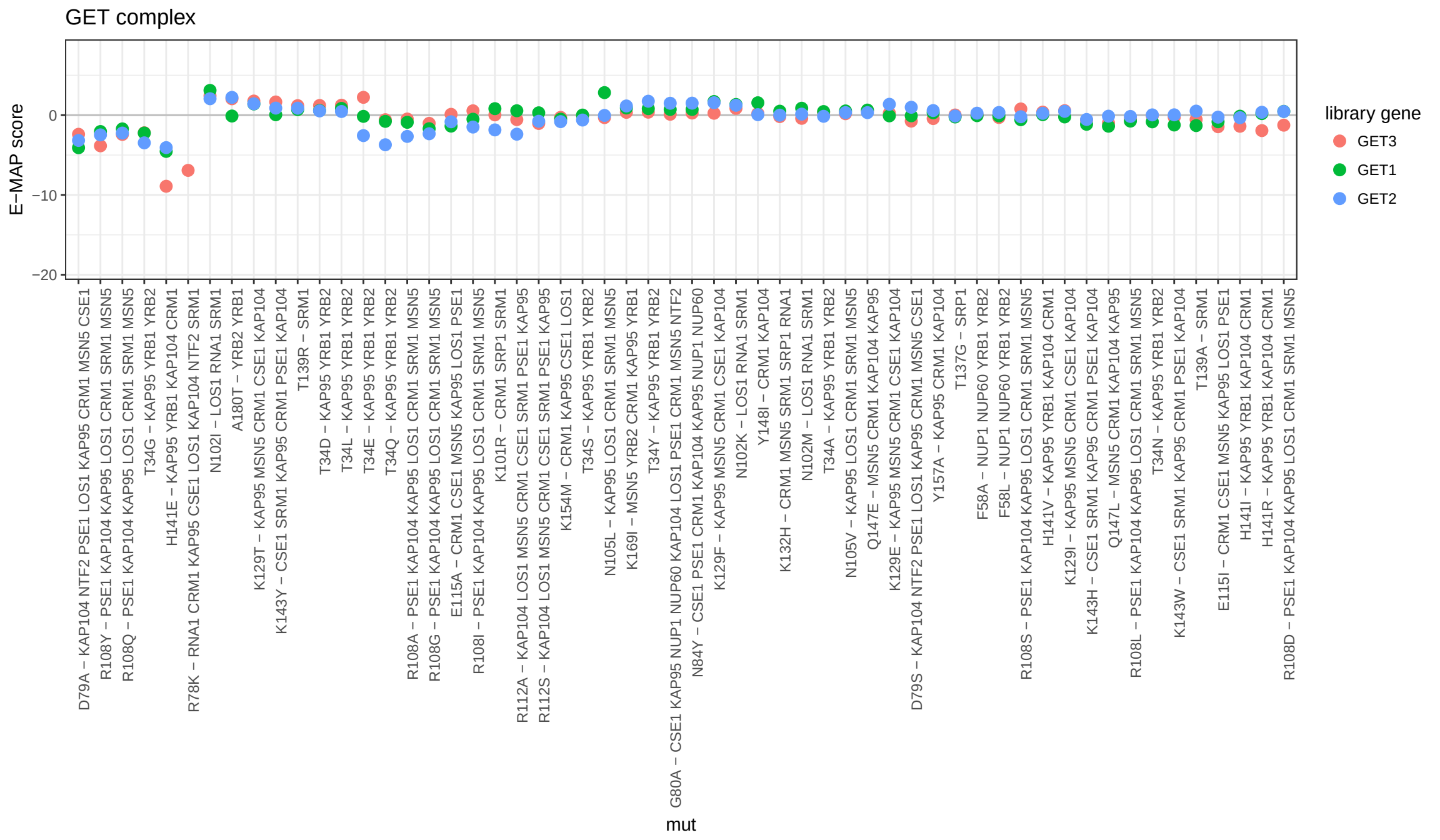

FBP degradation complex
E−MAP score
0
−10
−20
mut
library gene
YDL176W
RMD5
VID30
VID28
VID24
GID8
FYV10
GID7
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
N102I – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34E – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Y – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y148I – CRM1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N102K – LOS1 RNA1 SRM1
A180T – KAP95 YRB2 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
T34S – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

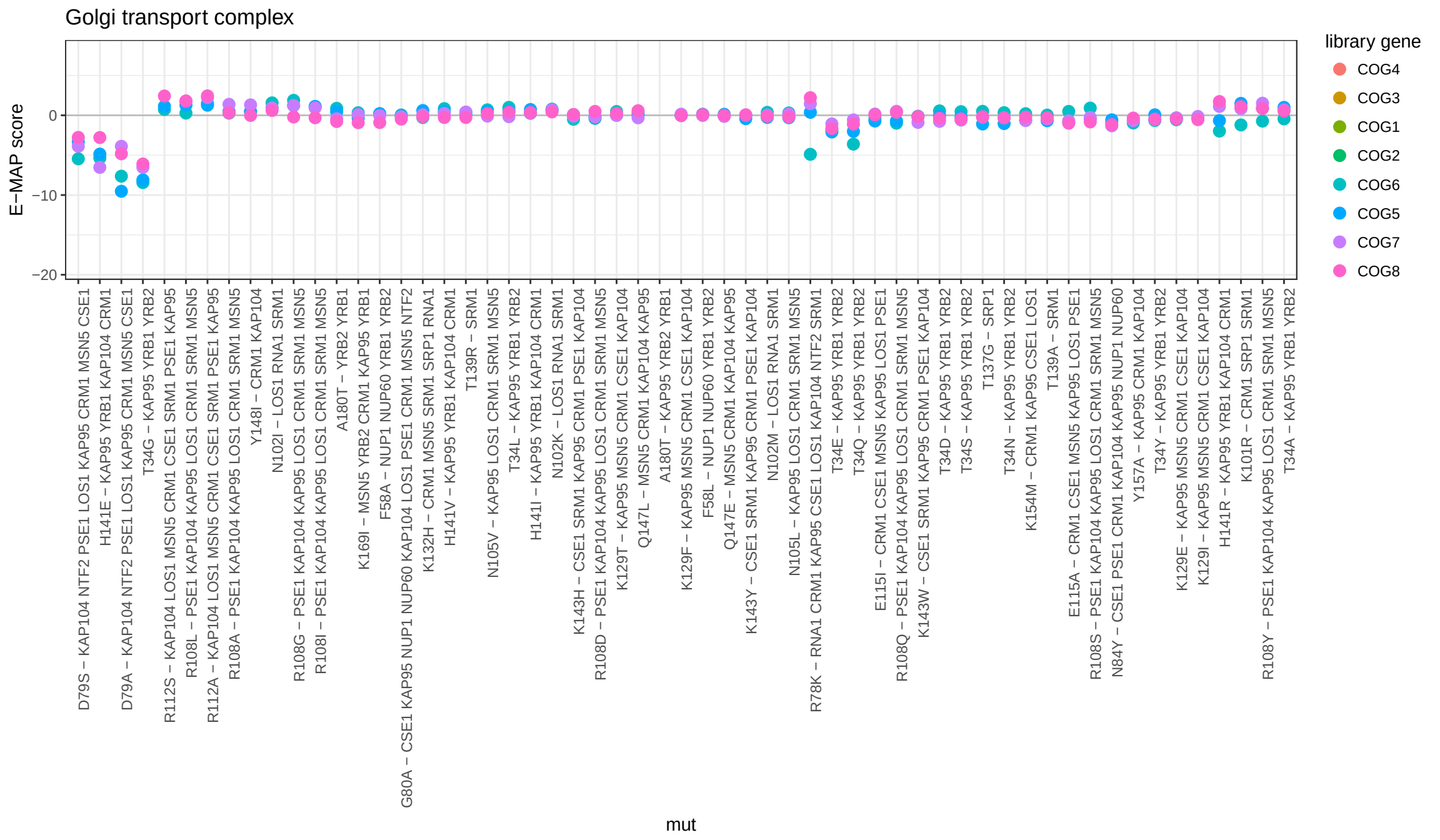

GAL3p/GAL80p complex
E−MAP score
0
−10
−20
mut
library gene
GAL3
GAL80
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
F58L – NUP1 NUP60 YRB1 YRB2
T139A – SRM1
T34S – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
F58A – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
Y148I – CRM1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

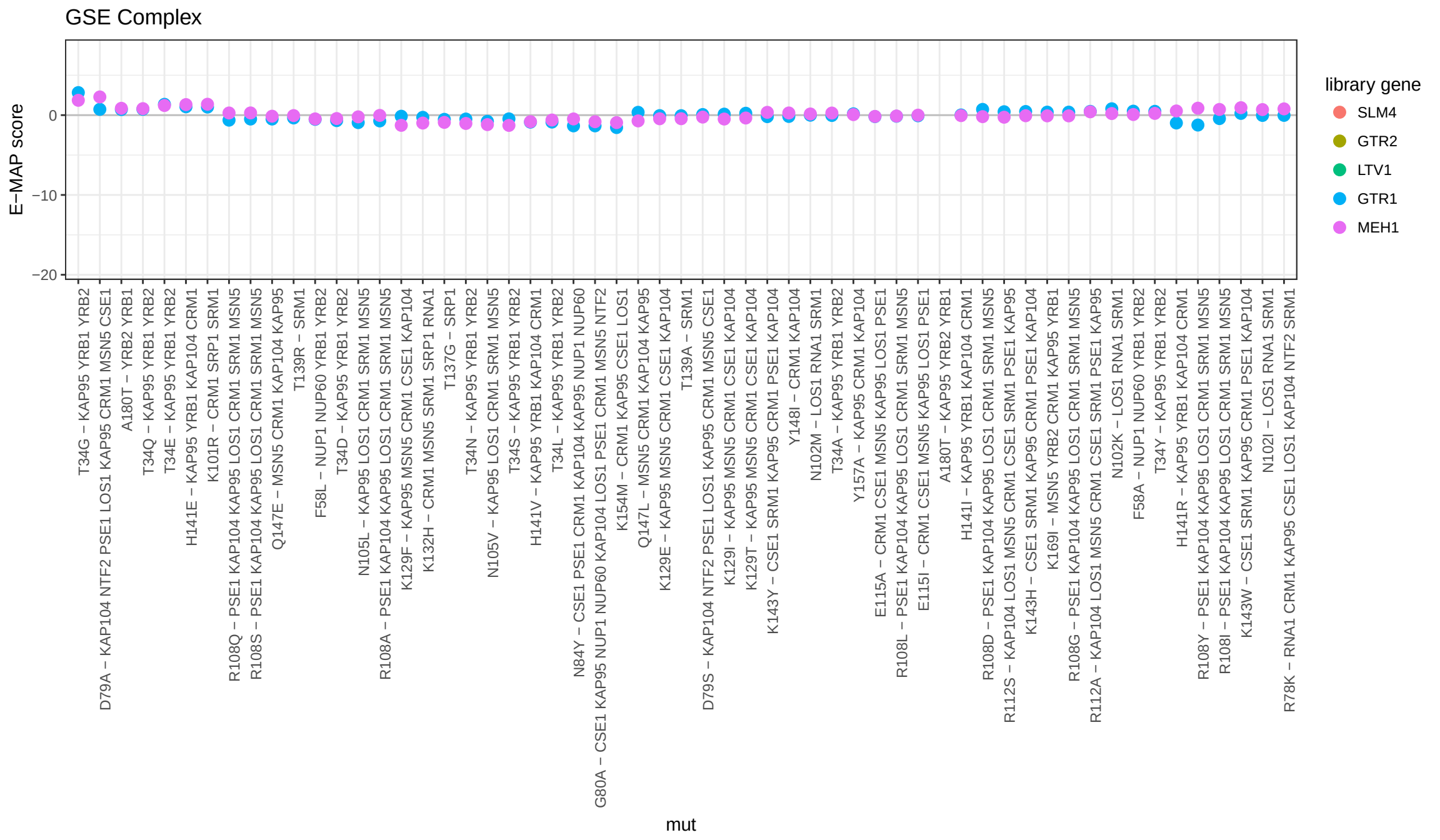

GAL4p/GAL80p complex
E−MAP score
0
−10
−20
library gene
GAL4
GAL80
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
Y148I – CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
H141I – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K154M – CRM1 KAP95 CSE1 LOS1
T137G – SRP1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
mut

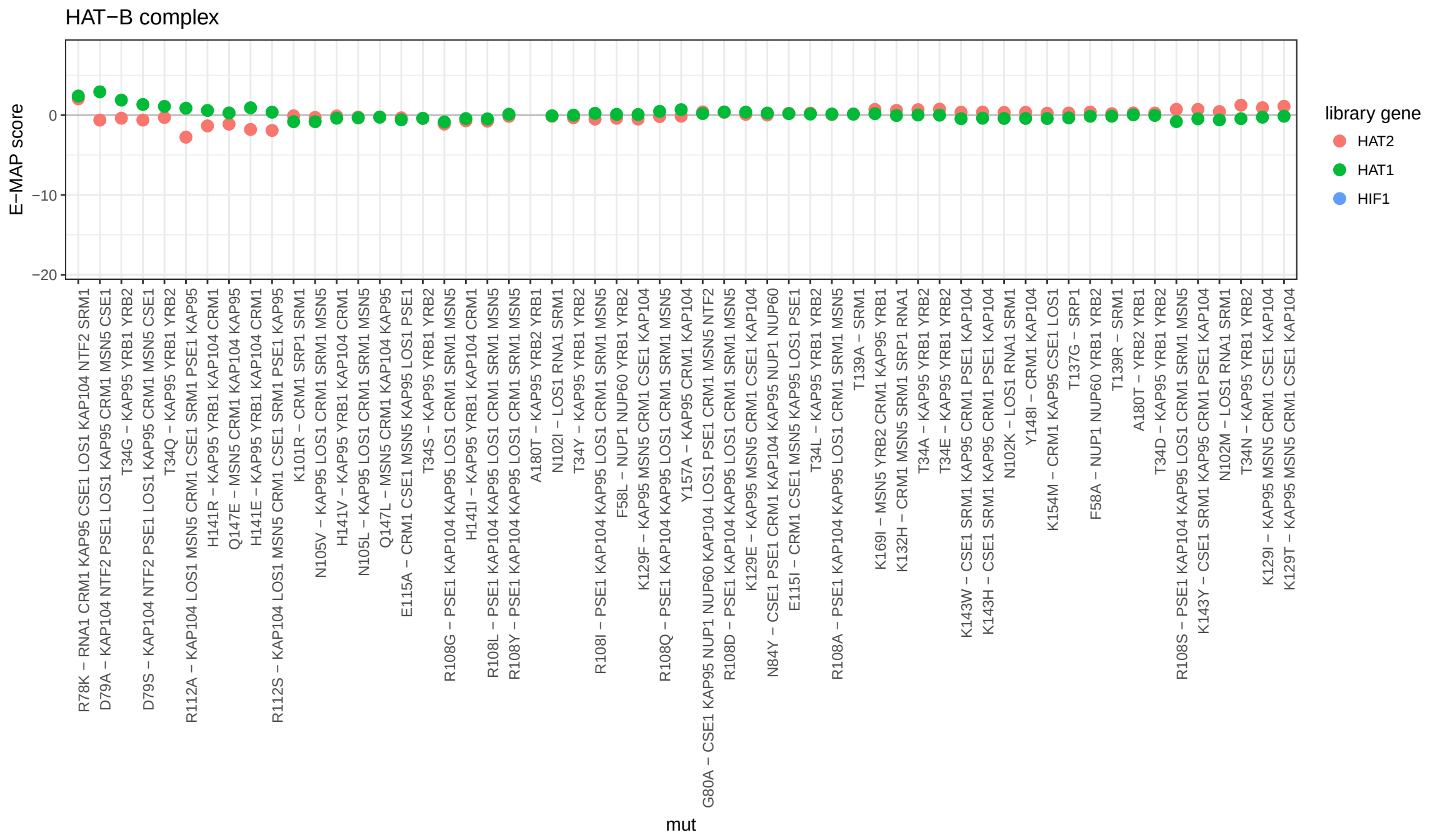

GARP complex
E−MAP score
0
−10
−20
library gene
VPS51
VPS53
VPS52
VPS54
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N102I – LOS1 RNA1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
T34D – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
F58A – NUP1 NUP60 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102M – LOS1 RNA1 SRM1
T137G – SRP1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34G – KAP95 YRB1 YRB2
T139A – SRM1
T34Y – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K154M – CRM1 KAP95 CSE1 LOS1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34A – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34S – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
mut

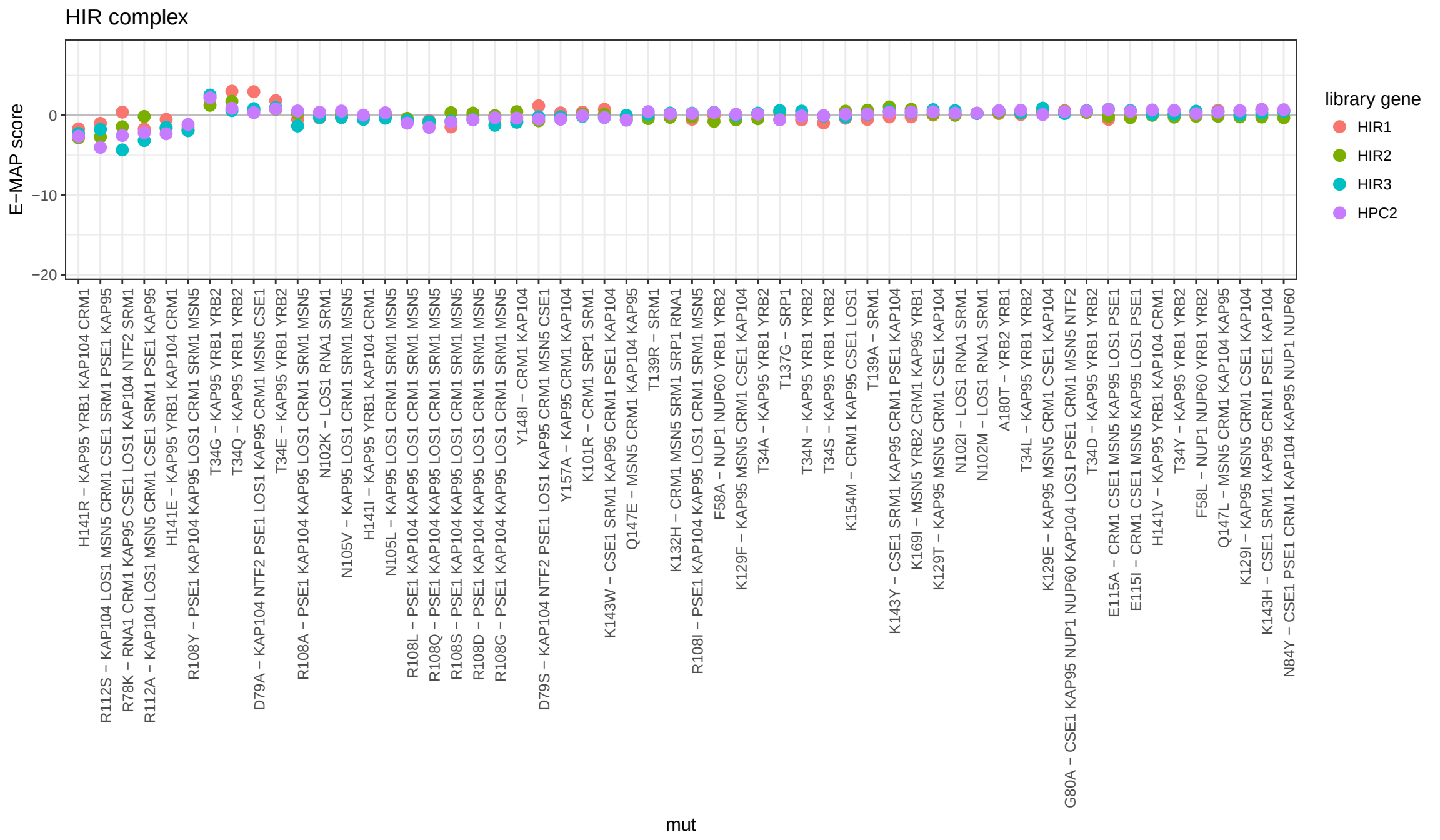

Gcn1p/Gcn20p complex
E−MAP score
0
−10
−20
library gene
GCN1
GCN20
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34D – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
N102M – LOS1 RNA1 SRM1
T139R – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34S – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
Q147L – MSN5 CRM1 KAP104 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
mut

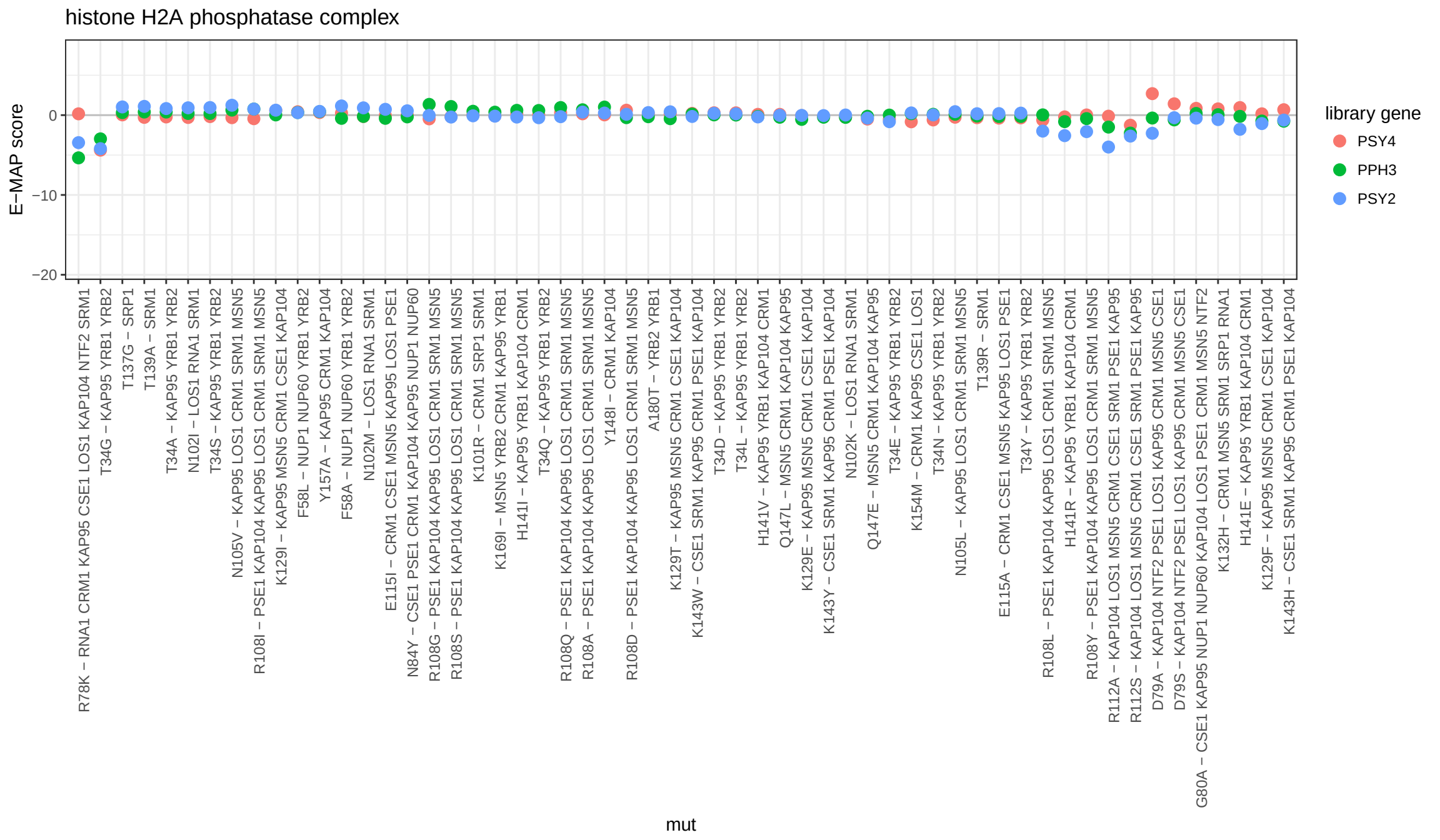

GET complex
E−MAP score
0
−10
−20
library gene
GET3
GET1
GET2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N102I – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K154M – CRM1 KAP95 CSE1 LOS1
T34S – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
Y148I – CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102M – LOS1 RNA1 SRM1
T34A – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
T137G – SRP1
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141I – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

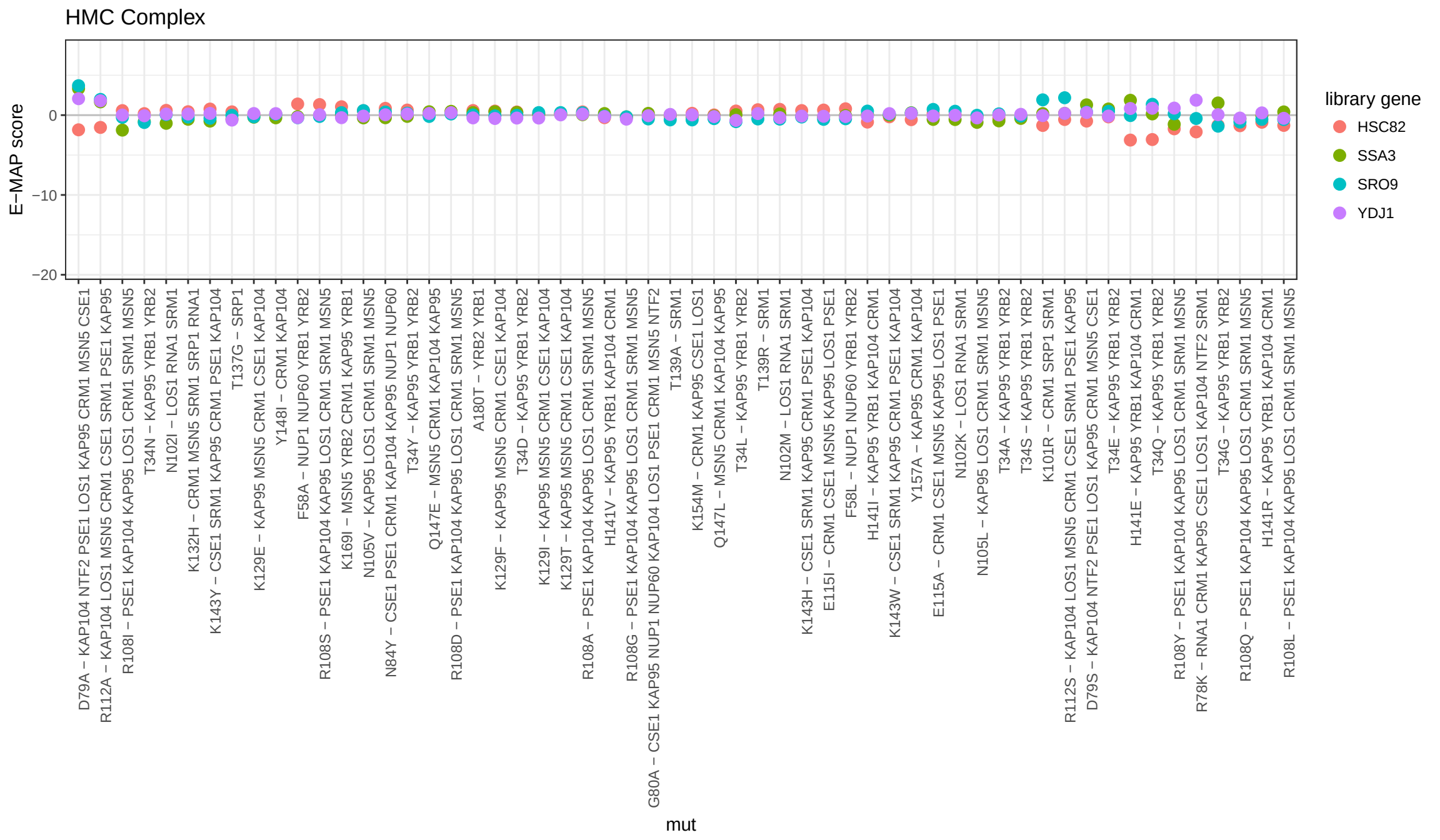

Golgi transport complex
E−MAP score
0
−10
−20
mut
library gene
COG4
COG3
COG1
COG2
COG6
COG5
COG7
COG8
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
N102I – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141V – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – KAP95 YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
T137G – SRP1
T34N – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Y157A – KAP95 CRM1 KAP104
T34Y – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2

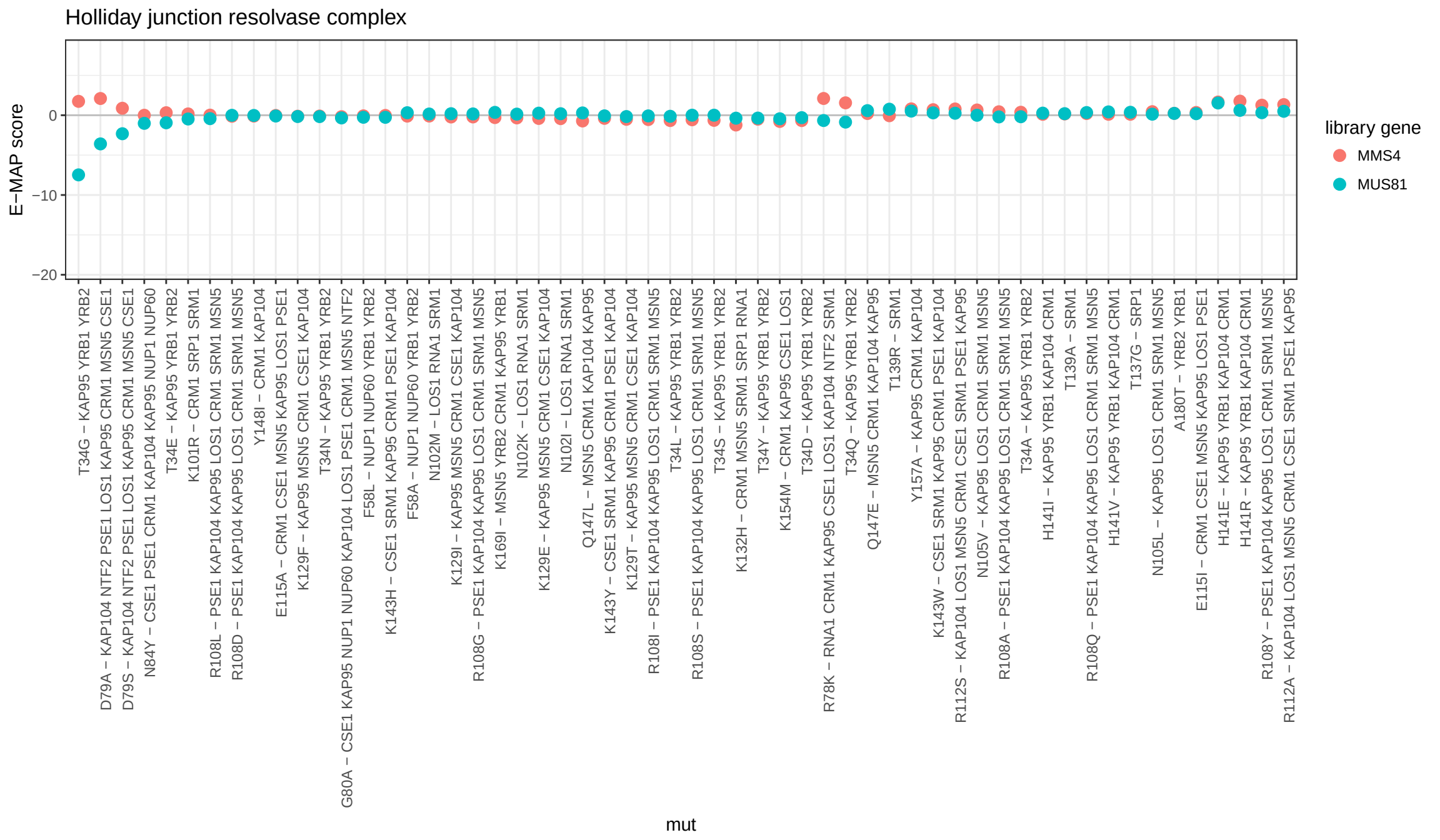

GSE Complex
E−MAP score
0
−10
−20
library gene
SLM4
GTR2
LTV1
GTR1
MEH1
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
A180T – YRB2 YRB1
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T137G – SRP1
T34N – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K154M – CRM1 KAP95 CSE1 LOS1
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
N102M – LOS1 RNA1 SRM1
T34A – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
A180T – KAP95 YRB2 YRB1
H141I – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102K – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut

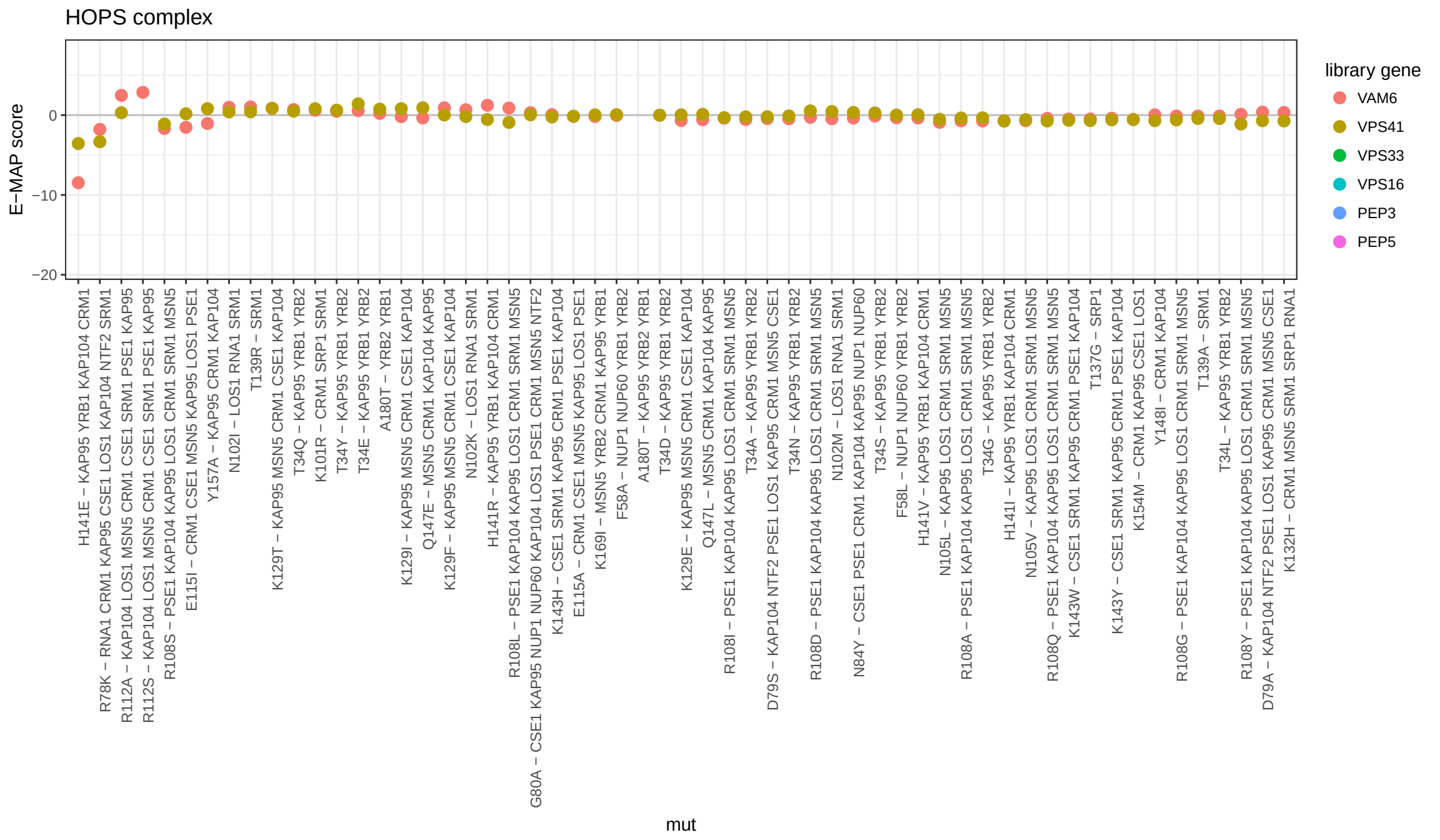

HAT−B complex
E−MAP score
0
−10
−20
library gene
HAT2
HAT1
HIF1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
N102I – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34A – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
Y148I – CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
T137G – SRP1
F58A – NUP1 NUP60 YRB1 YRB2
T139R – SRM1
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
mut

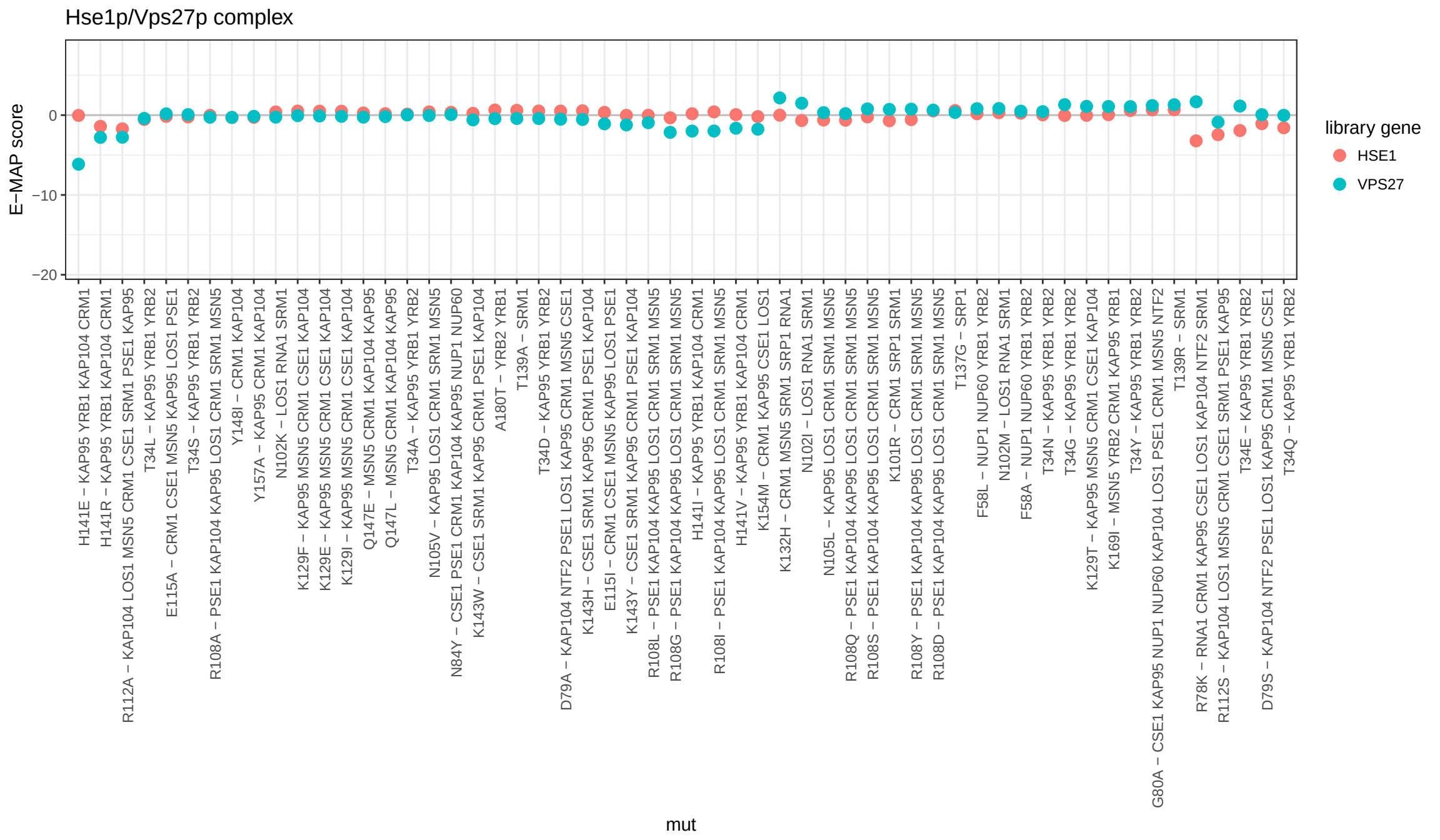

HIR complex
E−MAP score
0
−10
−20
library gene
HIR1
HIR2
HIR3
HPC2
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
K101R – CRM1 SRP1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
T137G – SRP1
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
N102M – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
T34L – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141V – KAP95 YRB1 KAP104 CRM1
T34Y – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
mut

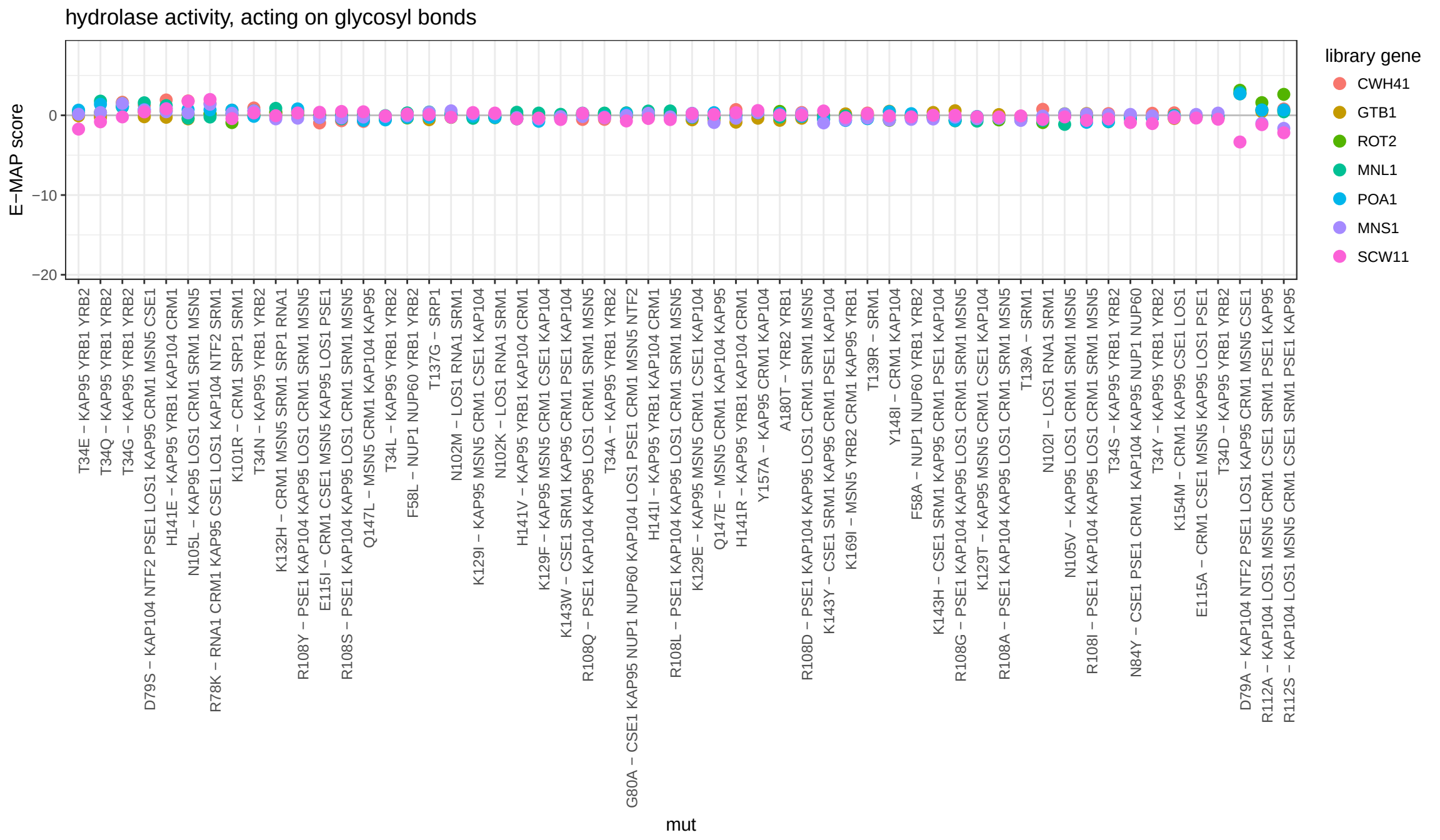

histone H2A phosphatase complex
E−MAP score
0
−10
−20
library gene
PSY4
PPH3
PSY2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
T137G – SRP1
T139A – SRM1
T34A – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
H141I – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
T34E – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T34N – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141E – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
mut

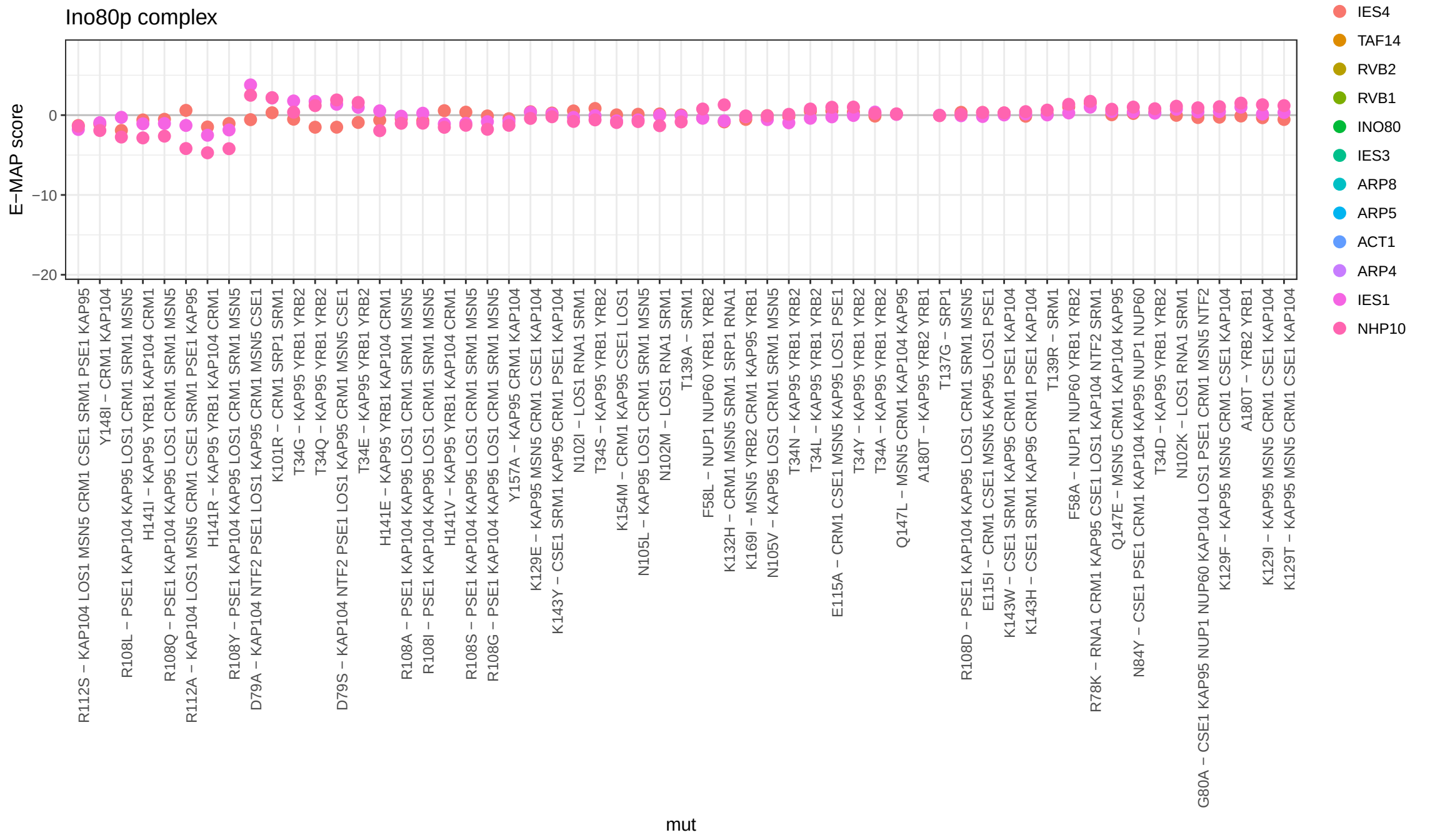

HMC Complex
E−MAP score
0
−10
−20
library gene
HSC82
SSA3
SRO9
YDJ1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Y148I – CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139A – SRM1
K154M – CRM1 KAP95 CSE1 LOS1
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
T139R – SRM1
N102M – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y157A – KAP95 CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

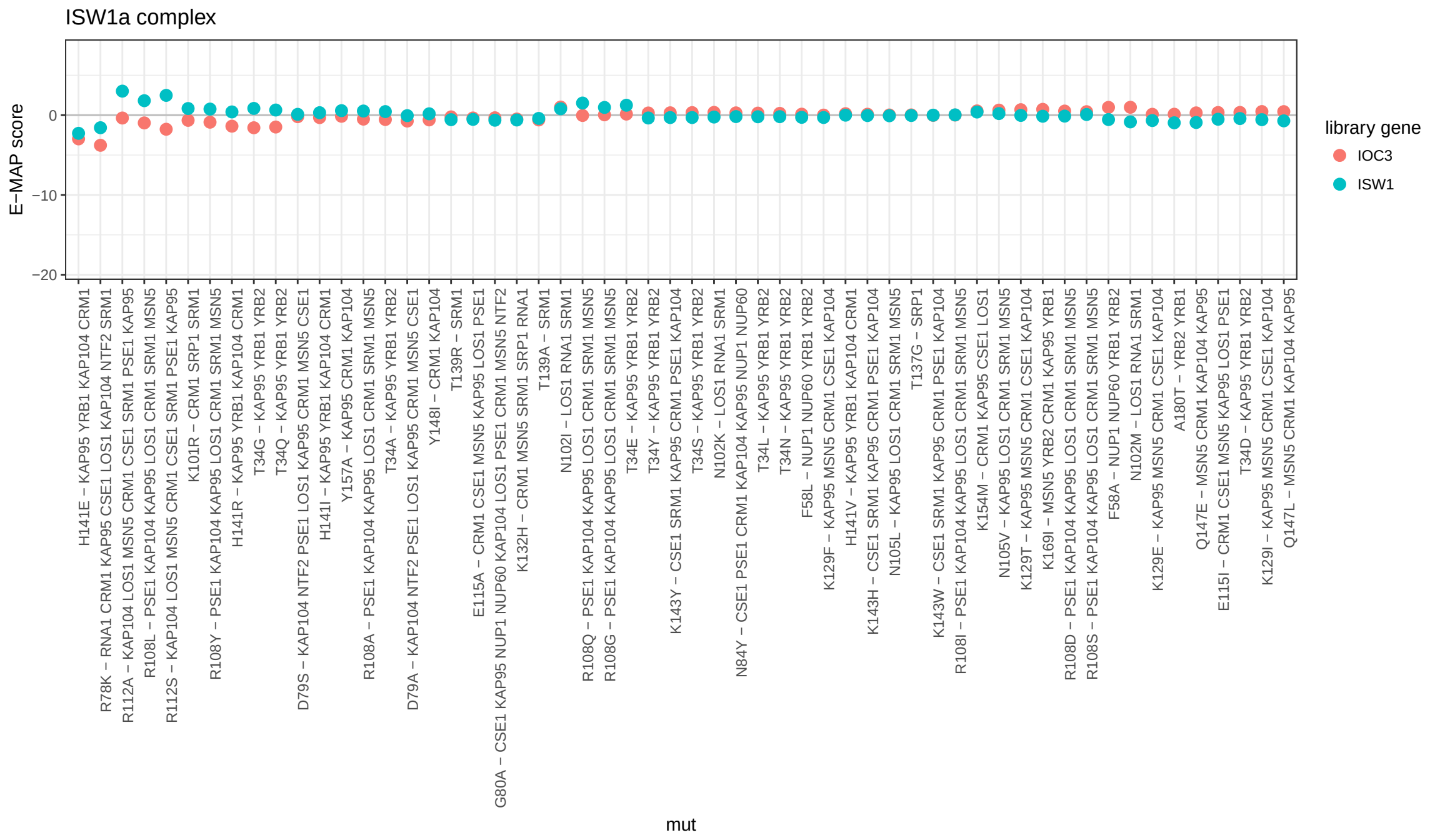

Holliday junction resolvase complex
E−MAP score
0
−10
−20
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
F58L – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102K – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34Y – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T34D – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34Q – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
Y157A – KAP95 CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T137G – SRP1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
mut
library gene
MMS4
MUS81

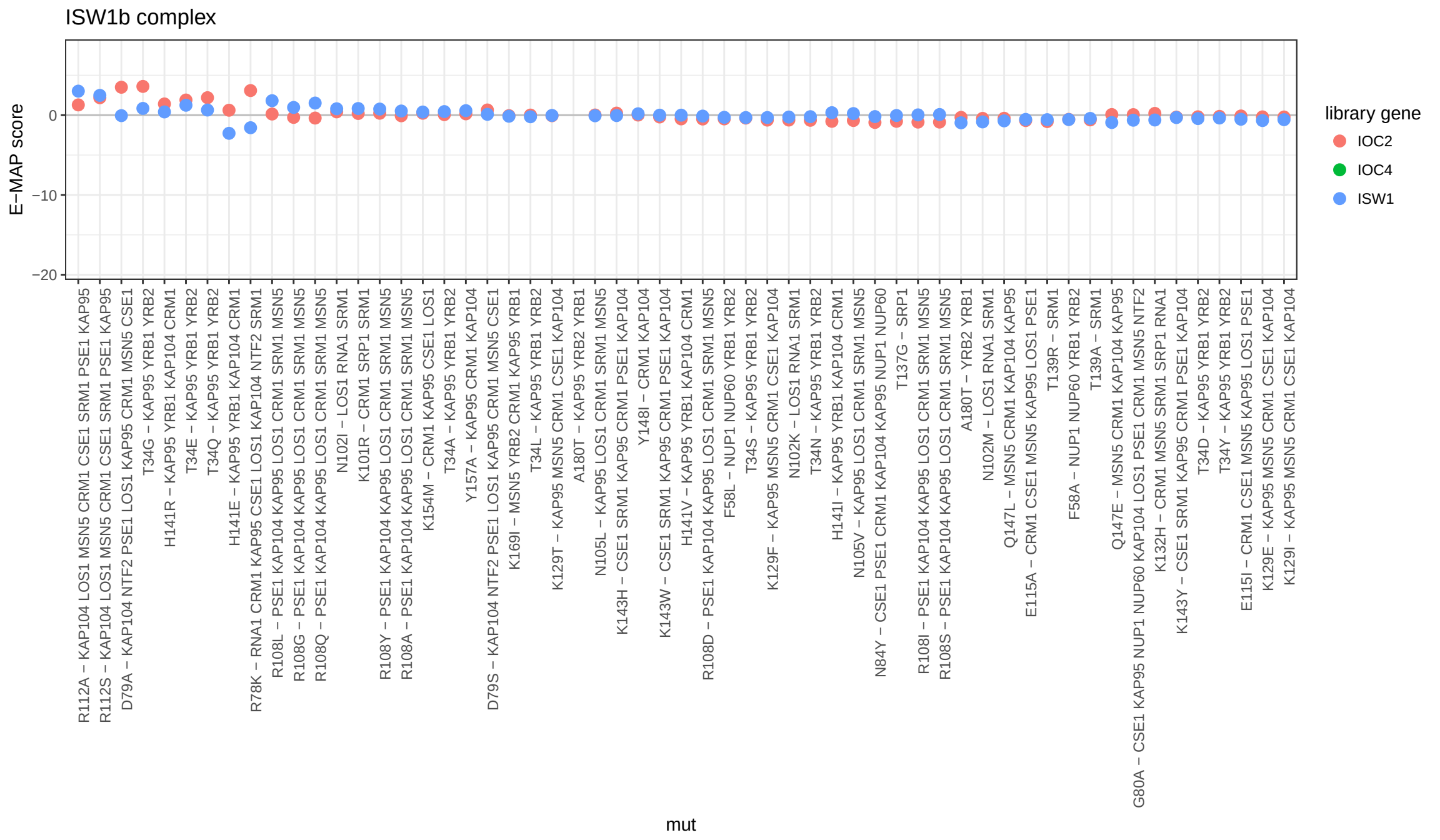

HOPS complex
E−MAP score
0
−10
−20
library gene
VAM6
VPS41
VPS33
VPS16
PEP3
PEP5
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y157A – KAP95 CRM1 KAP104
N102I – LOS1 RNA1 SRM1
T139R – SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Y – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
T34D – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34N – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
T34L – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
mut

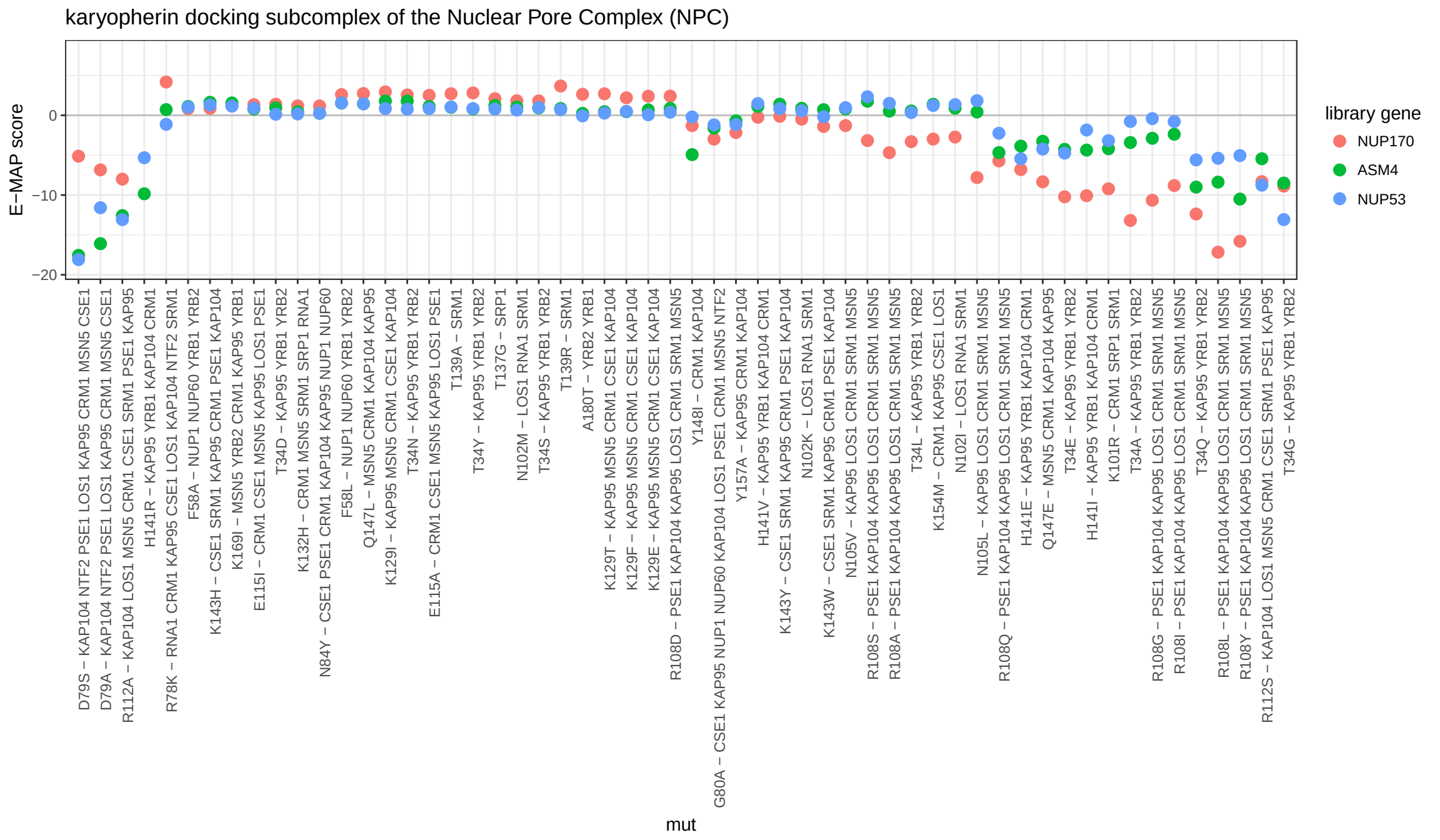

Hse1p/Vps27p complex
E−MAP score
0
−10
−20
library gene
HSE1
VPS27
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
Y157A – KAP95 CRM1 KAP104
N102K – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
Q147L – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
T139A – SRM1
T34D – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
mut

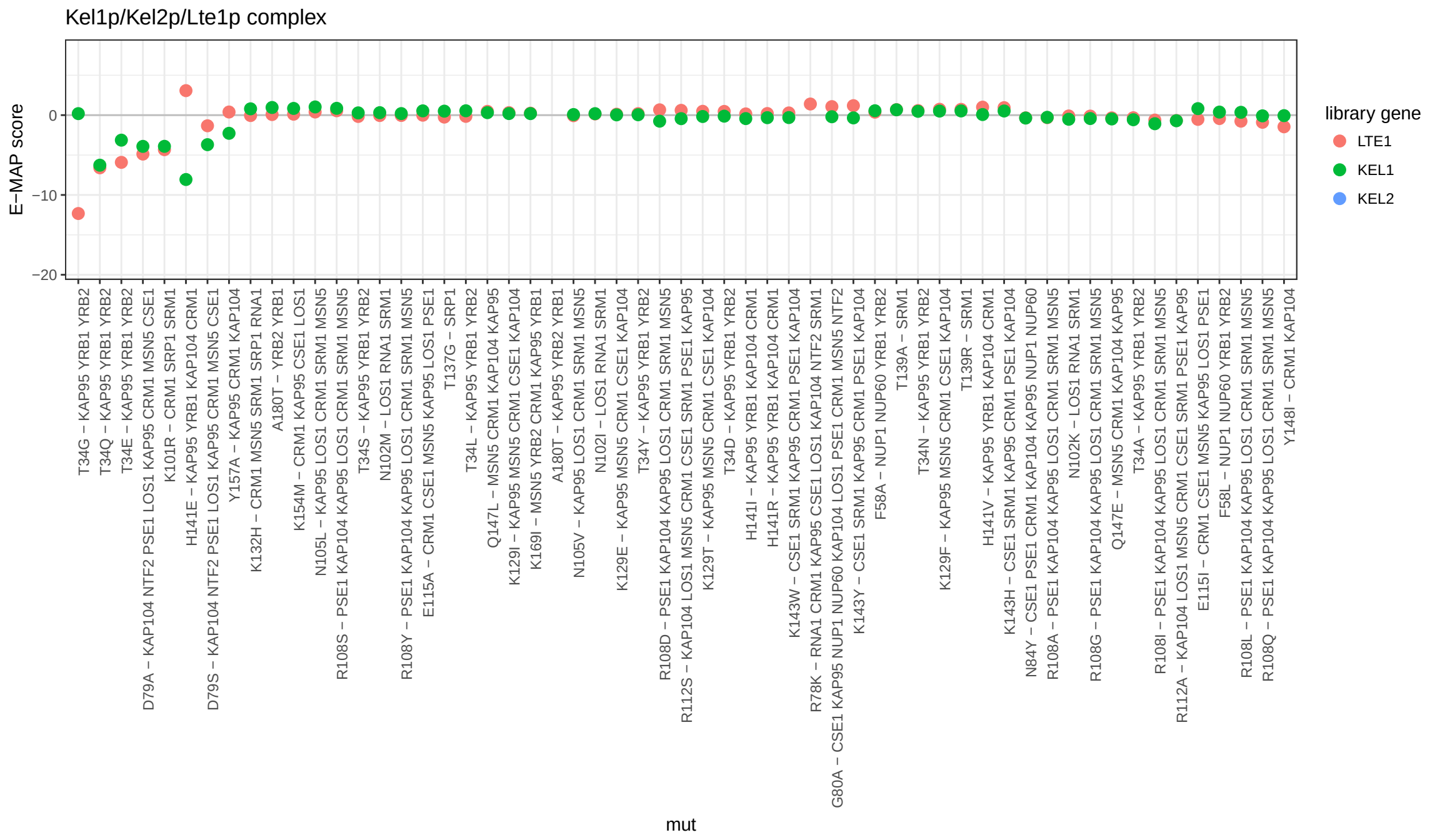

hydrolase activity, acting on glycosyl bonds
E−MAP score
0
−10
−20
mut
library gene
CWH41
GTB1
ROT2
MNL1
POA1
MNS1
SCW11
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K101R – CRM1 SRP1 SRM1
T34N – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
N102M – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139R – SRM1
Y148I – CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
N102I – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34D – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

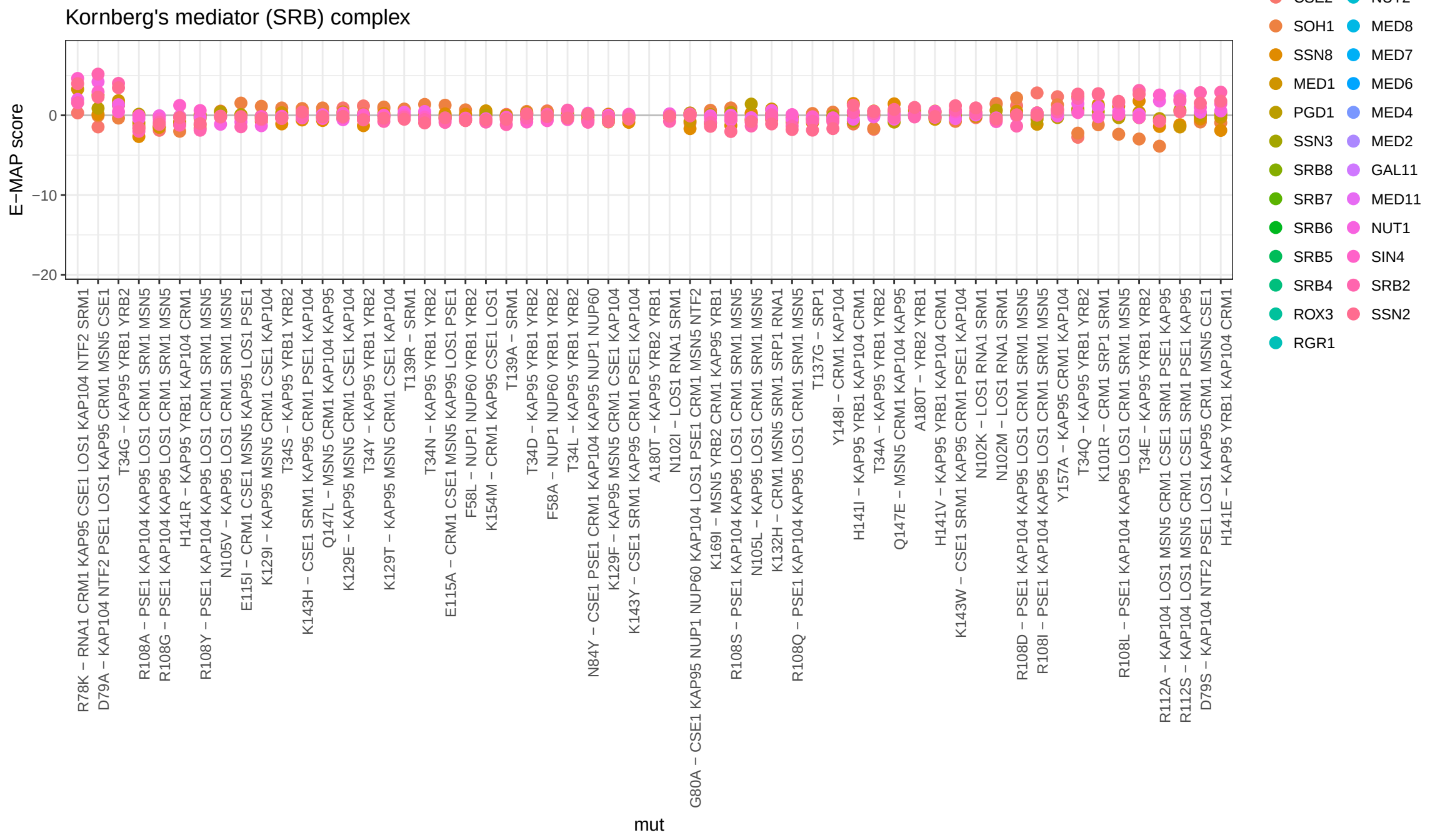

Ino80p complex
E−MAP score
0
−10
−20
mut
IES4
TAF14
RVB2
RVB1
INO80
IES3
ARP8
ARP5
ACT1
ARP4
IES1
NHP10
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y148I – CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
T139A – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – KAP95 YRB2 YRB1
T137G – SRP1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104

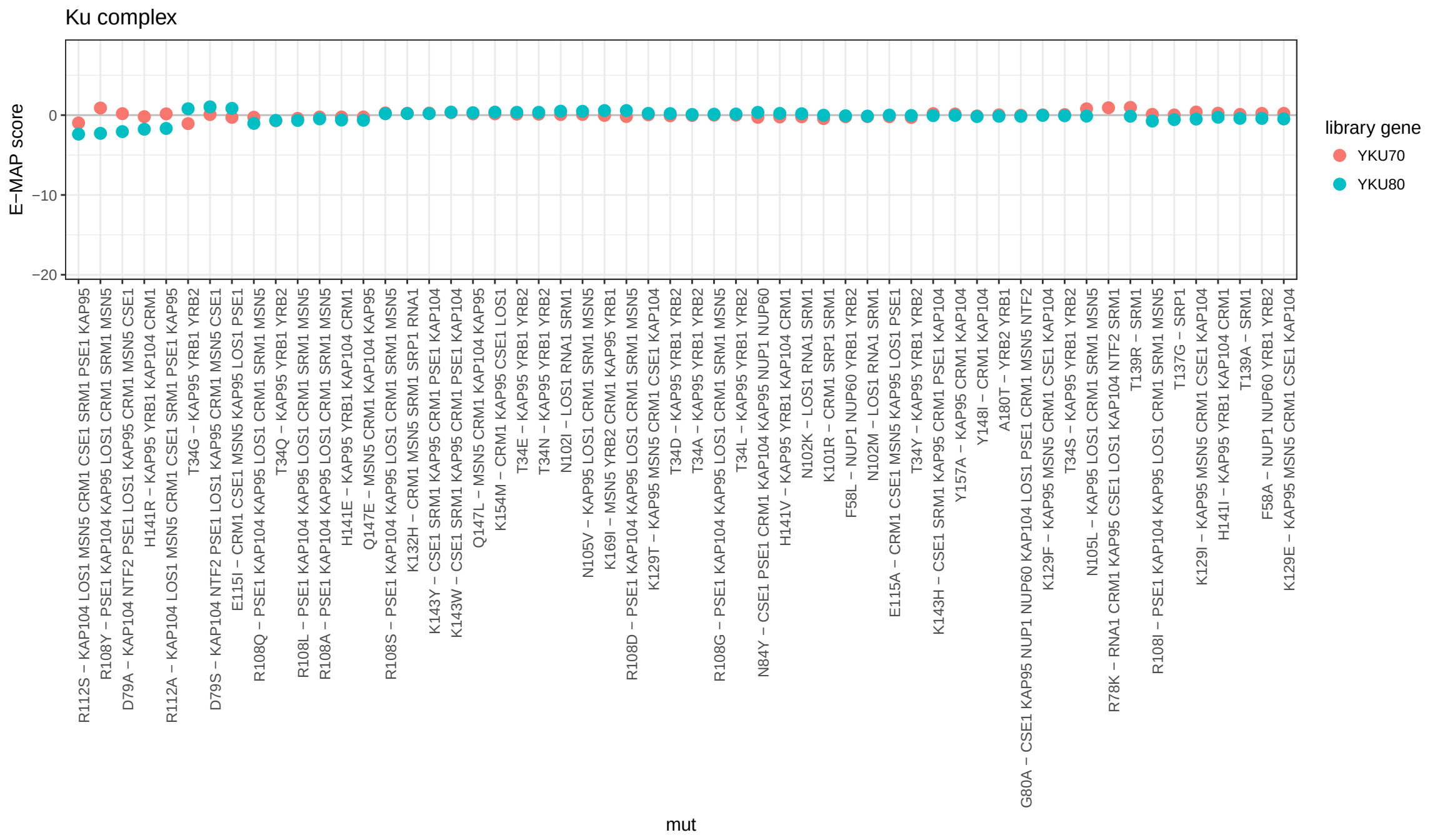

ISW1a complex
E−MAP score
0
−10
−20
mut
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141I – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y148I – CRM1 KAP104
T139R – SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139A – SRM1
N102I – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34L – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34D – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
library gene
IOC3
ISW1

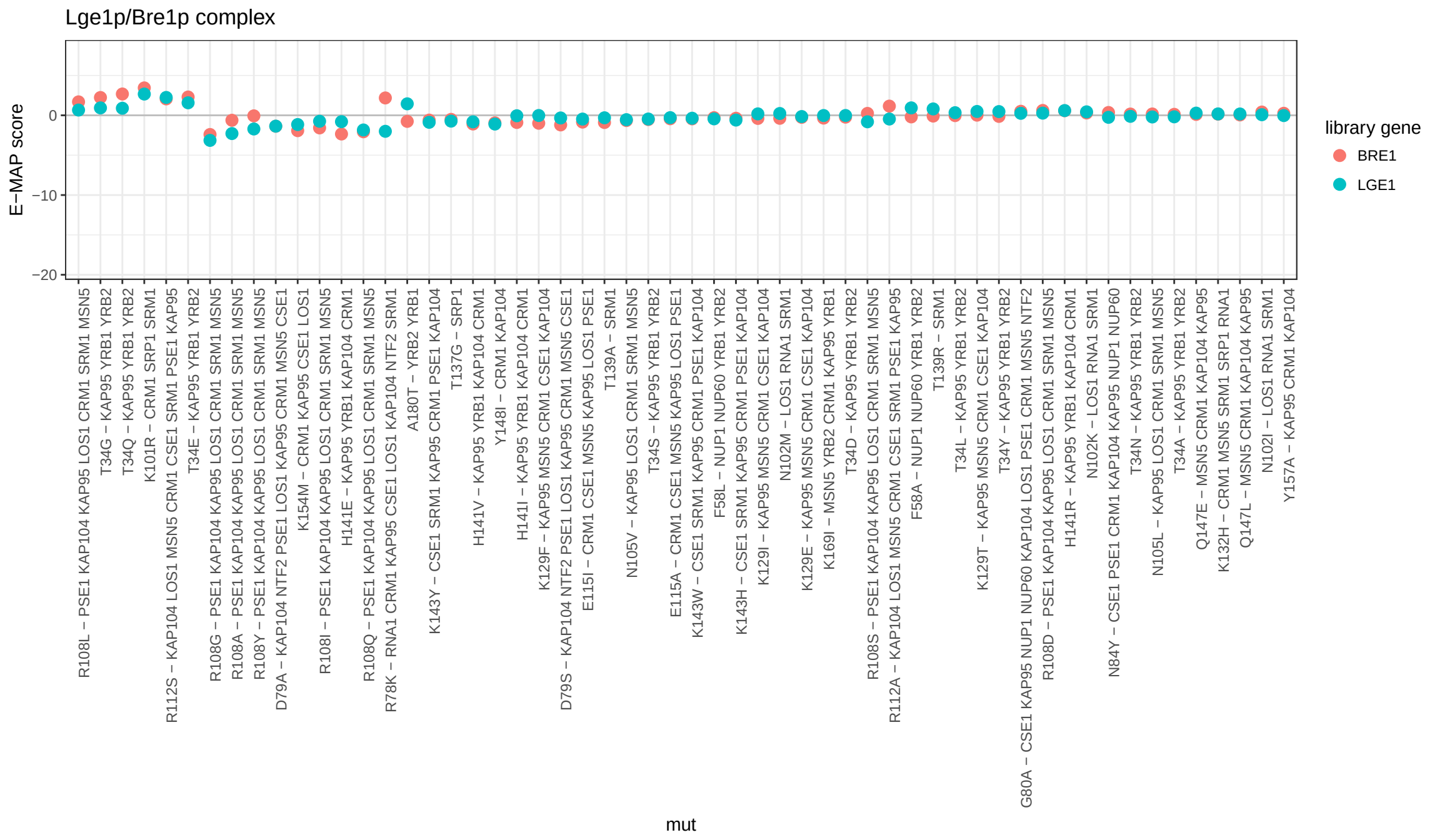

ISW1b complex
E−MAP score
0
−10
−20
library gene
IOC2
IOC4
ISW1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T34A – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34L – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T137G – SRP1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
T139A – SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
mut

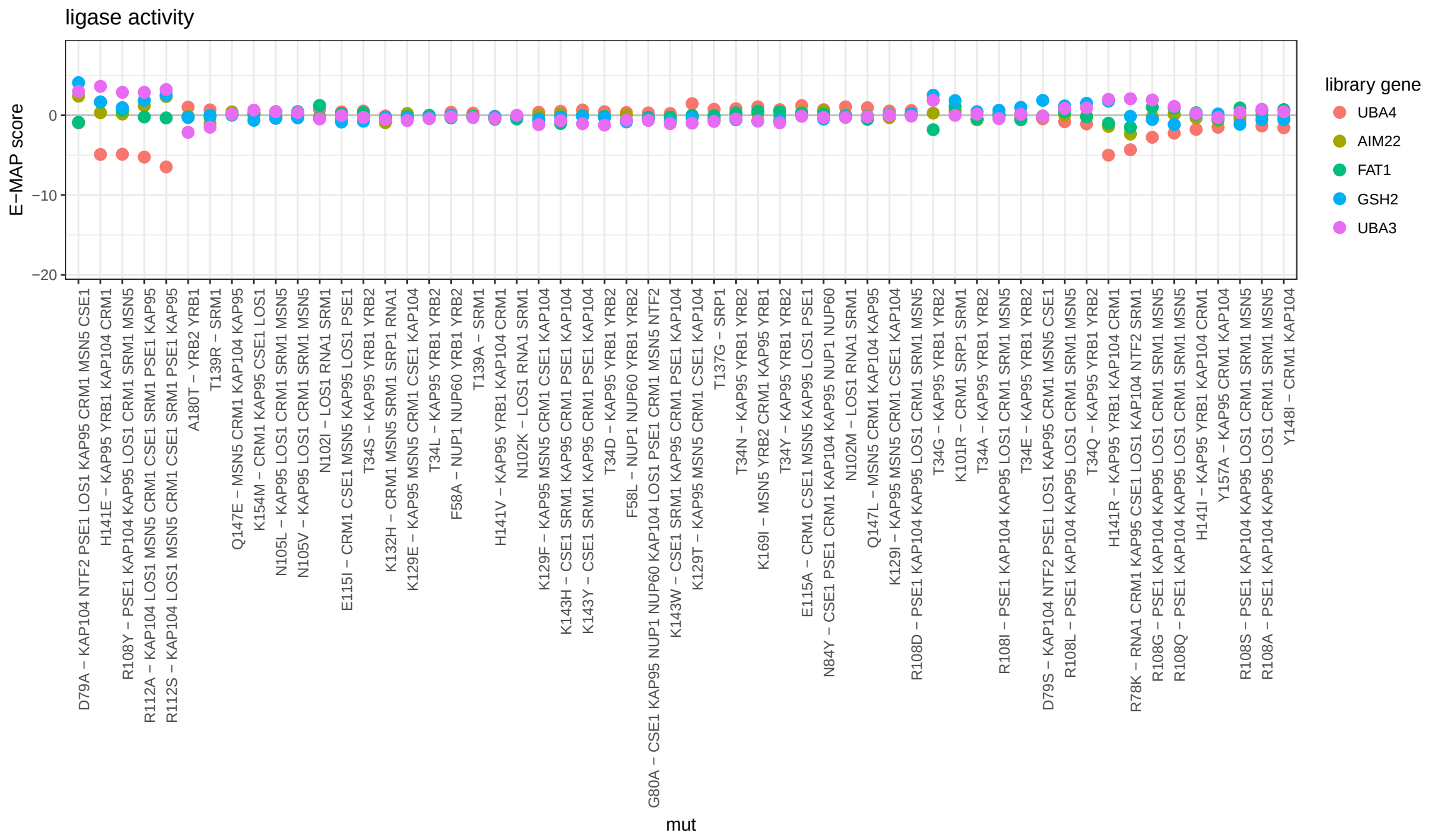

karyopherin docking subcomplex of the Nuclear Pore Complex (NPC)
E−MAP score
0
−10
−20
library gene
NUP170
ASM4
NUP53
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34D – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58L – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
T34Y – KAP95 YRB1 YRB2
T137G – SRP1
N102M – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
T139R – SRM1
A180T – YRB2 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y157A – KAP95 CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
T34E – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34A – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
mut

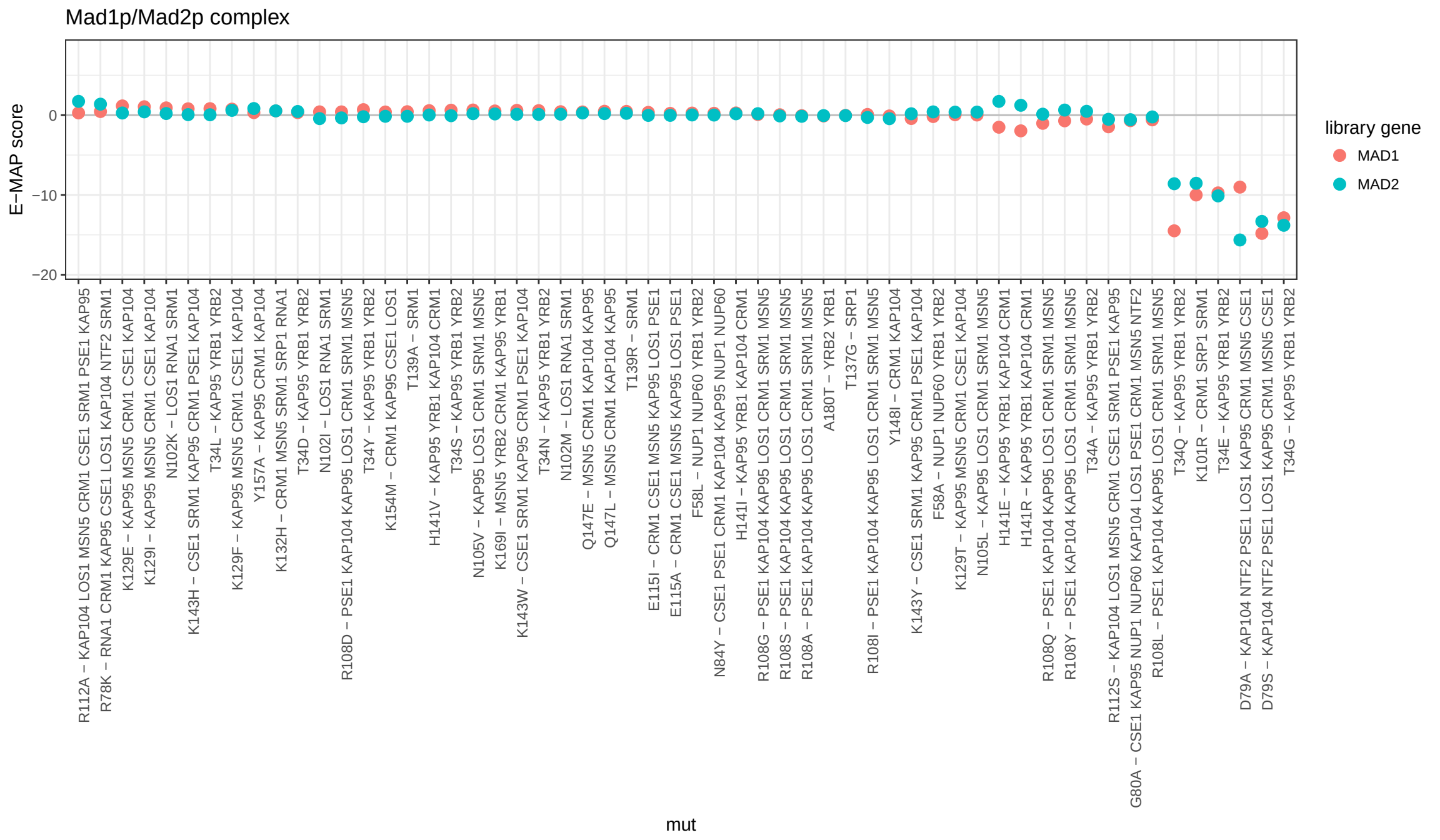

Kel1p/Kel2p/Lte1p complex
E−MAP score
0
−10
−20
library gene
LTE1
KEL1
KEL2
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
A180T – YRB2 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
T34L – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
A180T – KAP95 YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
T139A – SRM1
T34N – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
mut

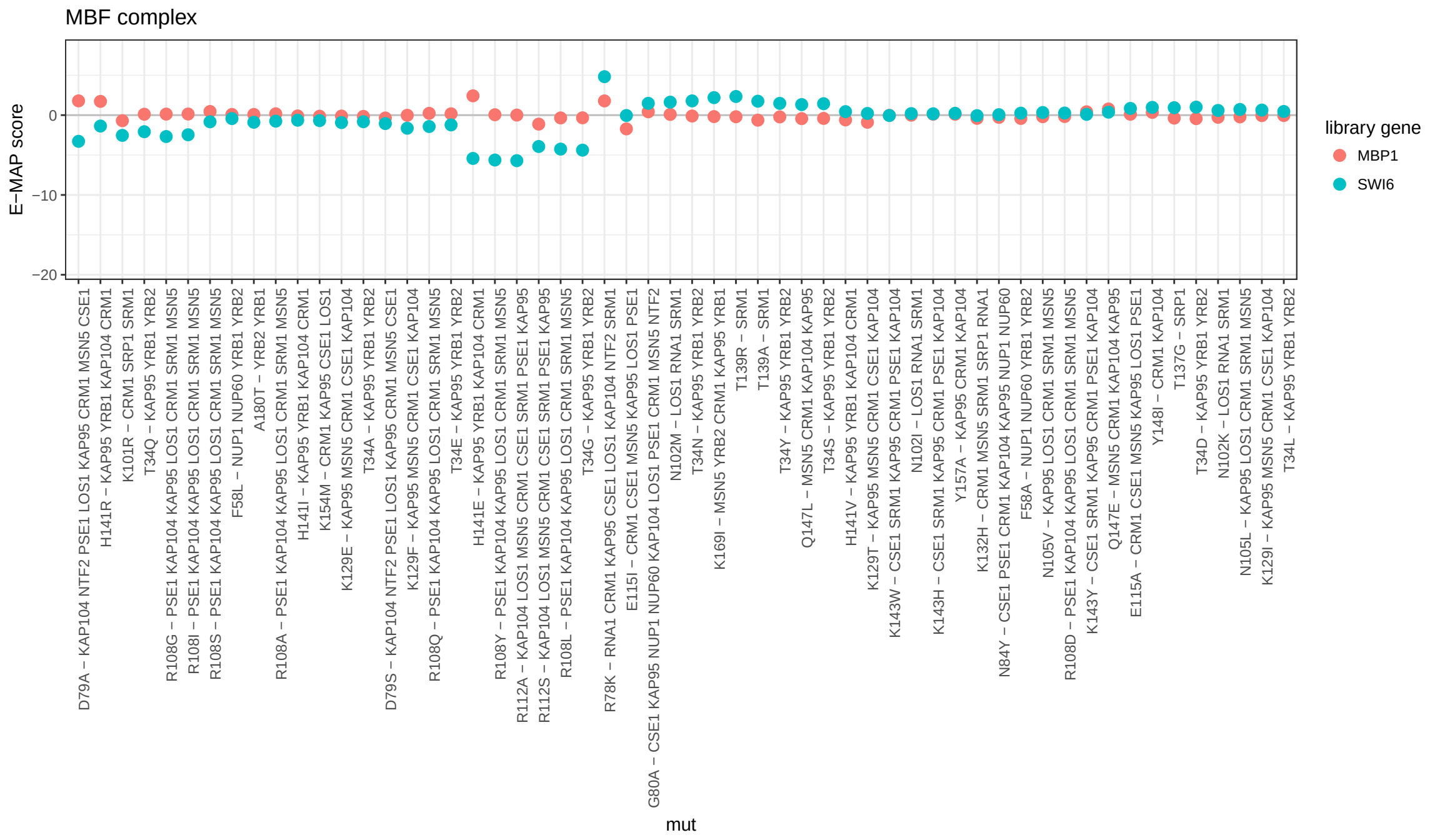

Kornberg's mediator (SRB) complex
E−MAP score
0
−10
−20
mut
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
T34N – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – KAP95 YRB2 YRB1
N102I – LOS1 RNA1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
H141V – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
SOH1
SSN8
MED1
PGD1
SSN3
SRB8
SRB7
SRB6
SRB5
SRB4
ROX3
RGR1
MED8
MED7
MED6
MED4
MED2
GAL11
MED11
NUT1
SIN4
SRB2
SSN2

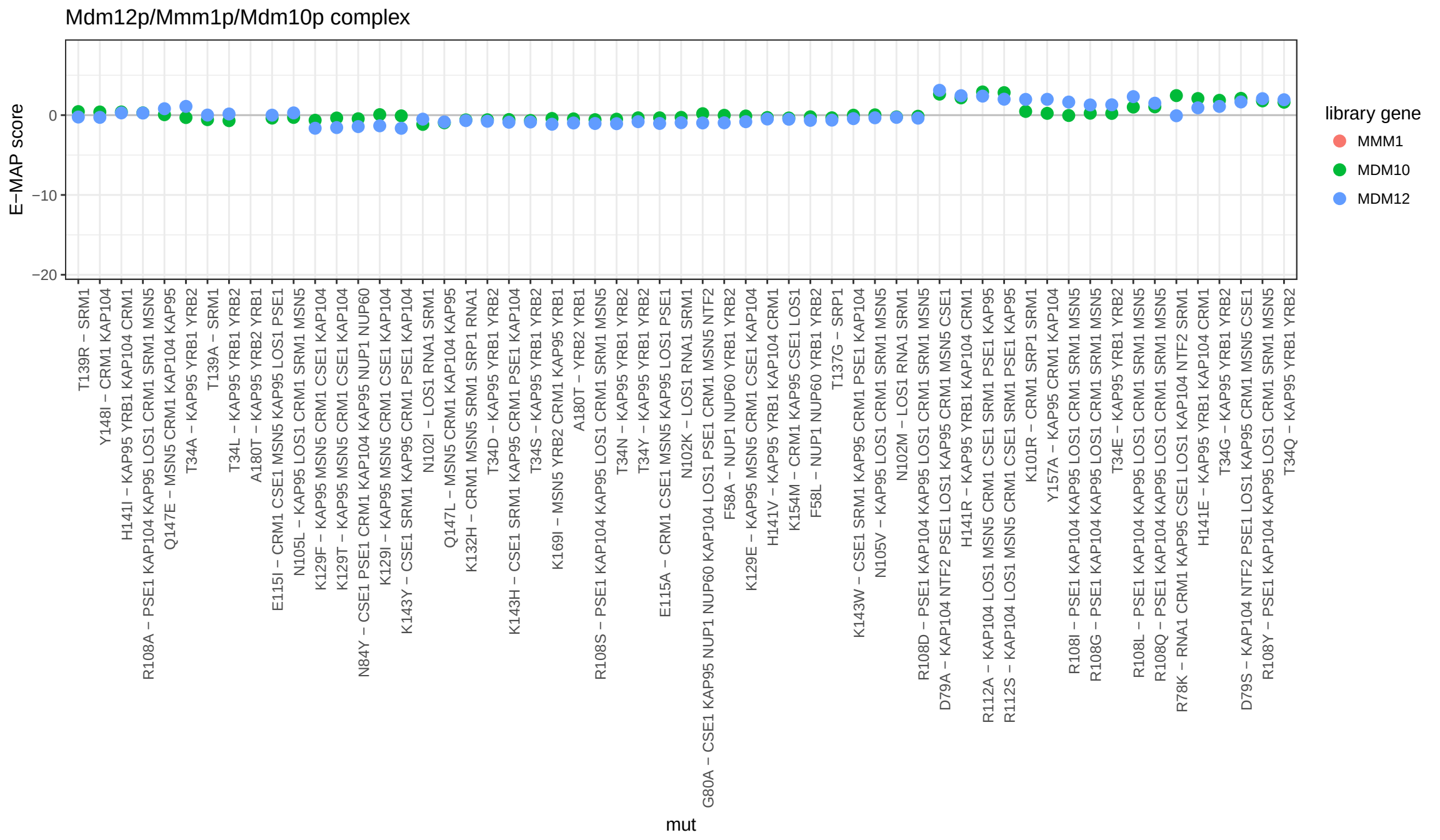

Ku complex
E−MAP score
0
−10
−20
library gene
YKU70
YKU80
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K154M – CRM1 KAP95 CSE1 LOS1
T34E – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
K101R – CRM1 SRP1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y157A – KAP95 CRM1 KAP104
Y148I – CRM1 KAP104
A180T – YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T139R – SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
mut

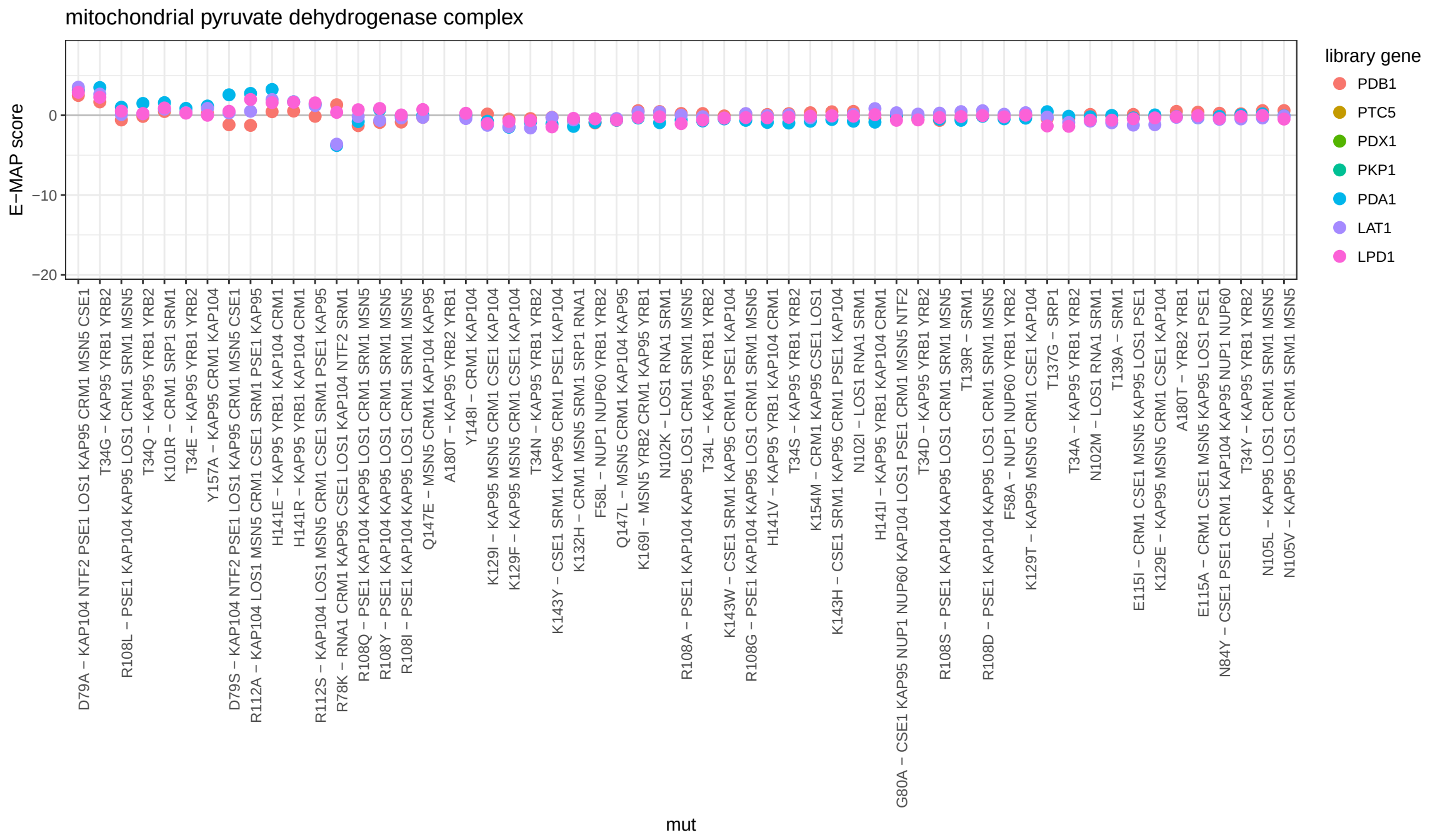

Lge1p/Bre1p complex
E−MAP score
0
−10
−20
library gene
BRE1
LGE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K154M – CRM1 KAP95 CSE1 LOS1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
A180T – YRB2 YRB1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34D – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
F58A – NUP1 NUP60 YRB1 YRB2
T139R – SRM1
T34L – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
Q147L – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
Y157A – KAP95 CRM1 KAP104
mut

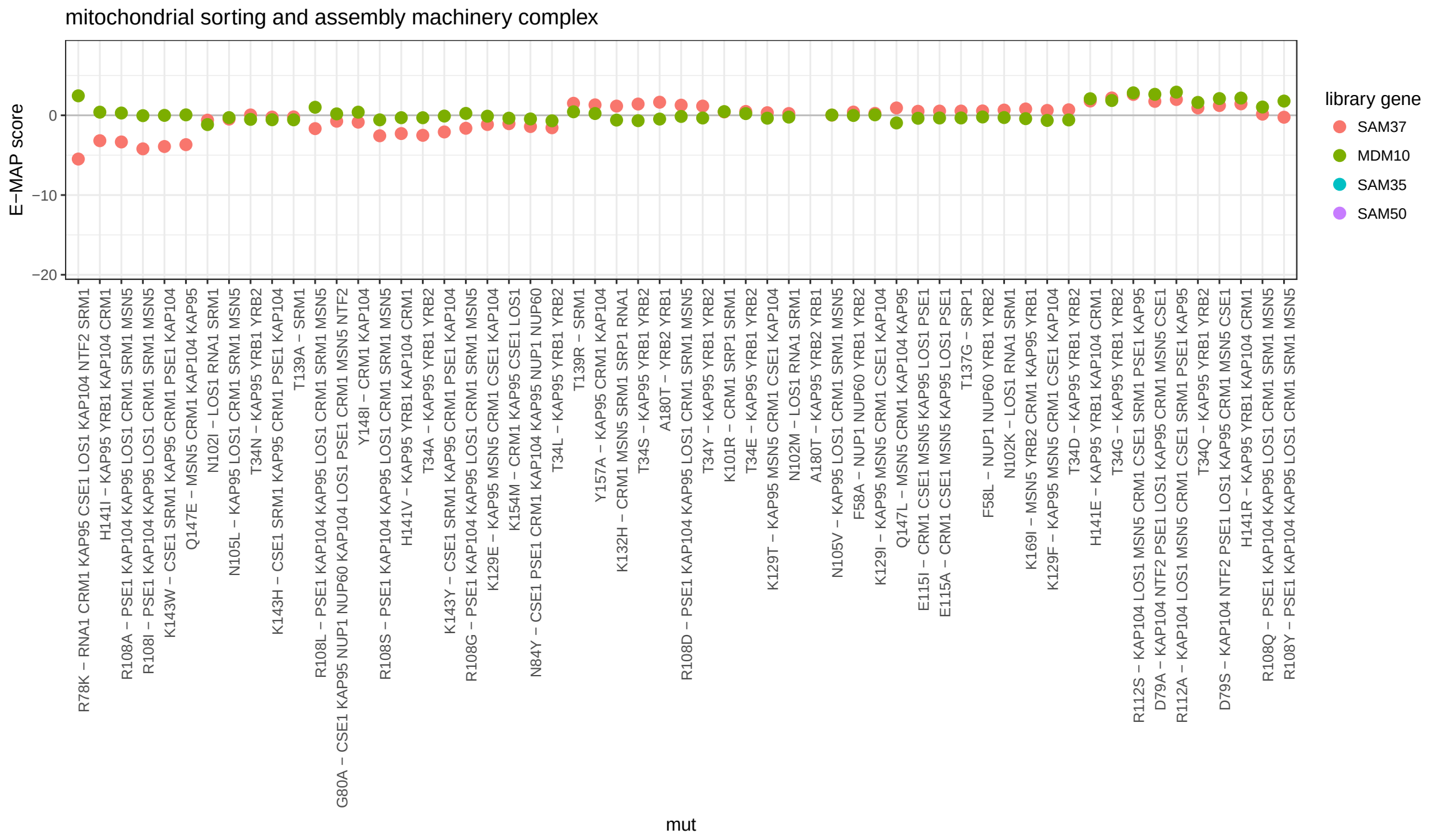

ligase activity
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
A180T – YRB2 YRB1
T139R – SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T139A – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Y – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34A – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
library gene
UBA4
AIM22
FAT1
GSH2
UBA3

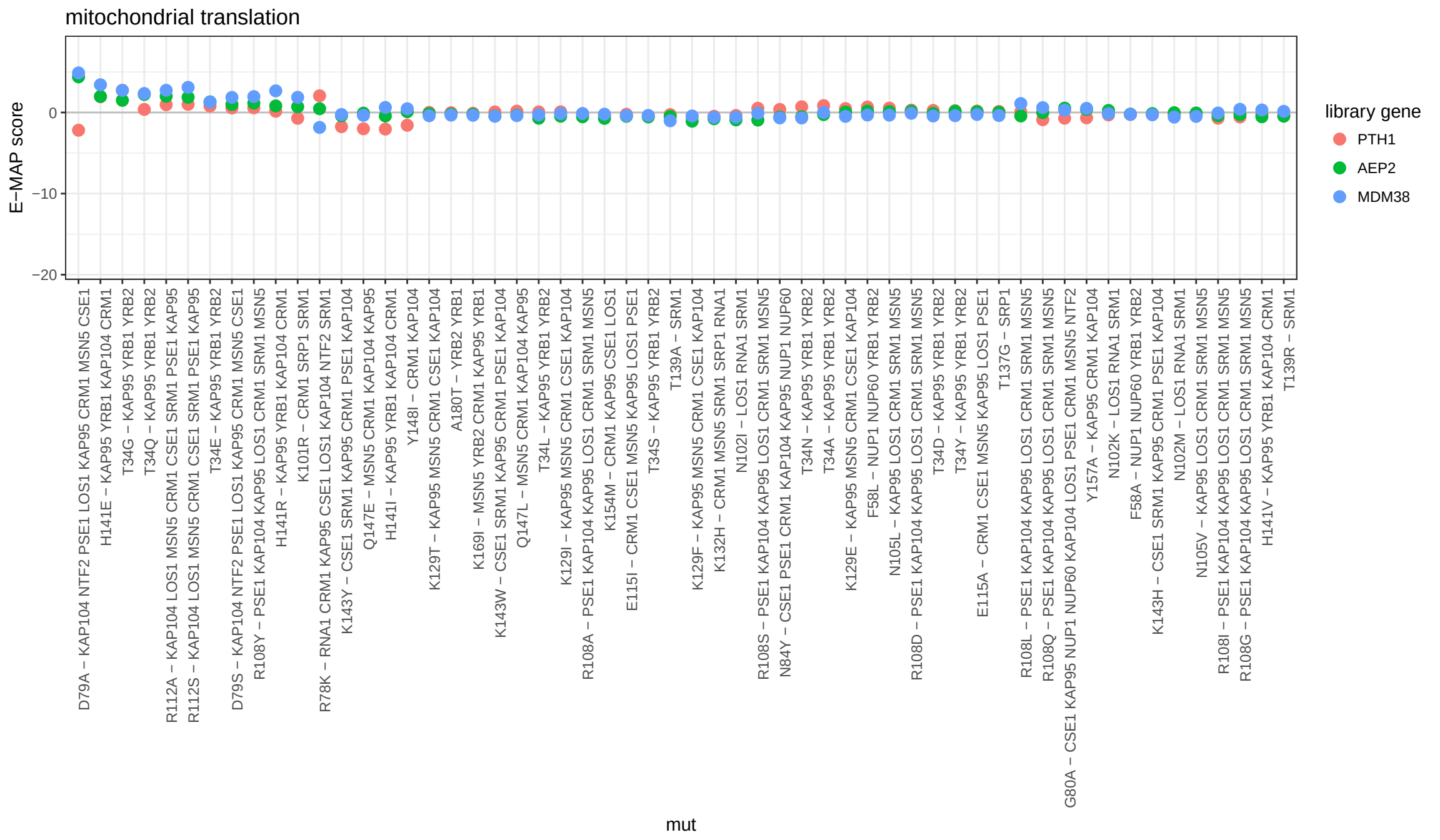

Mad1p/Mad2p complex
E−MAP score
0
−10
−20
library gene
MAD1
MAD2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34D – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
T34S – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
Q147L – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
T137G – SRP1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
mut

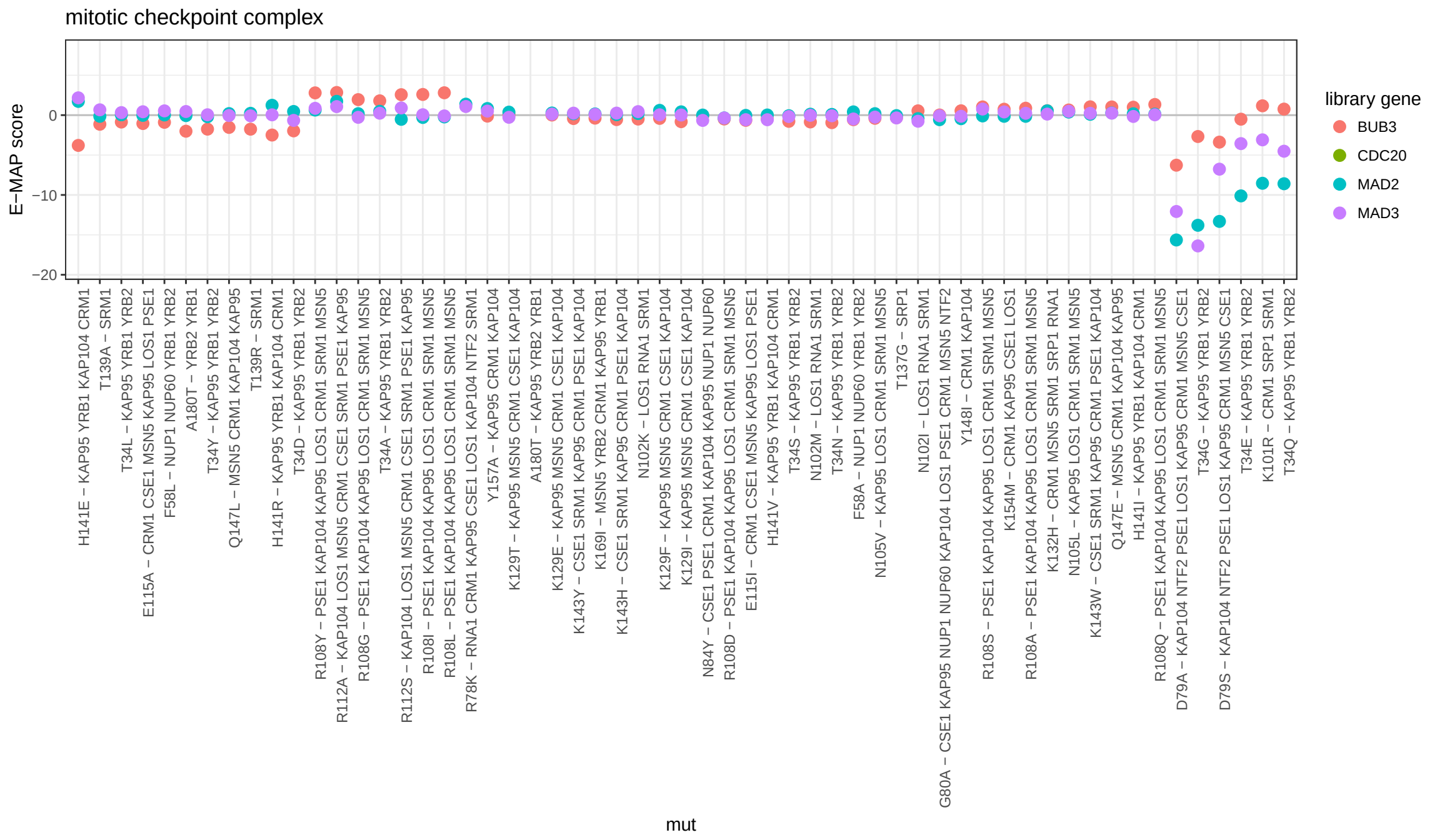

MBF complex
E–MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
A180T – YRB2 YRB1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N102M – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139R – SRM1
T139A – SRM1
T34Y – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T34S – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y157A – KAP95 CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y148I – CRM1 KAP104
T137G – SRP1
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
library gene
MBP1
SWI6

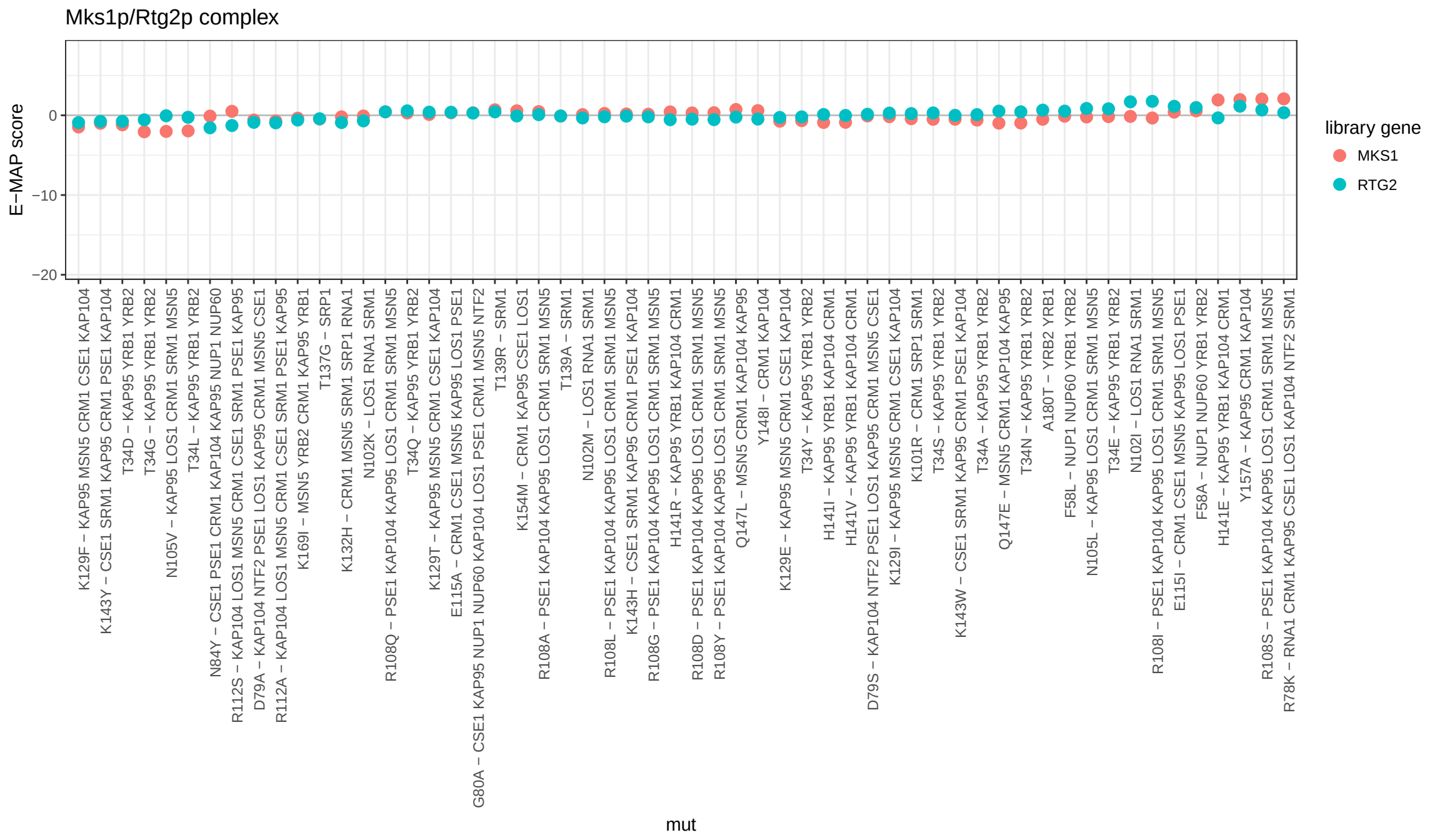

Mdm12p/Mmm1p/Mdm10p complex
E−MAP score
0
−10
−20
library gene
MMM1
MDM10
MDM12
T139R – SRM1
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
T139A – SRM1
T34L – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34D – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
A180T – YRB2 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
F58A – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
F58L – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
mut

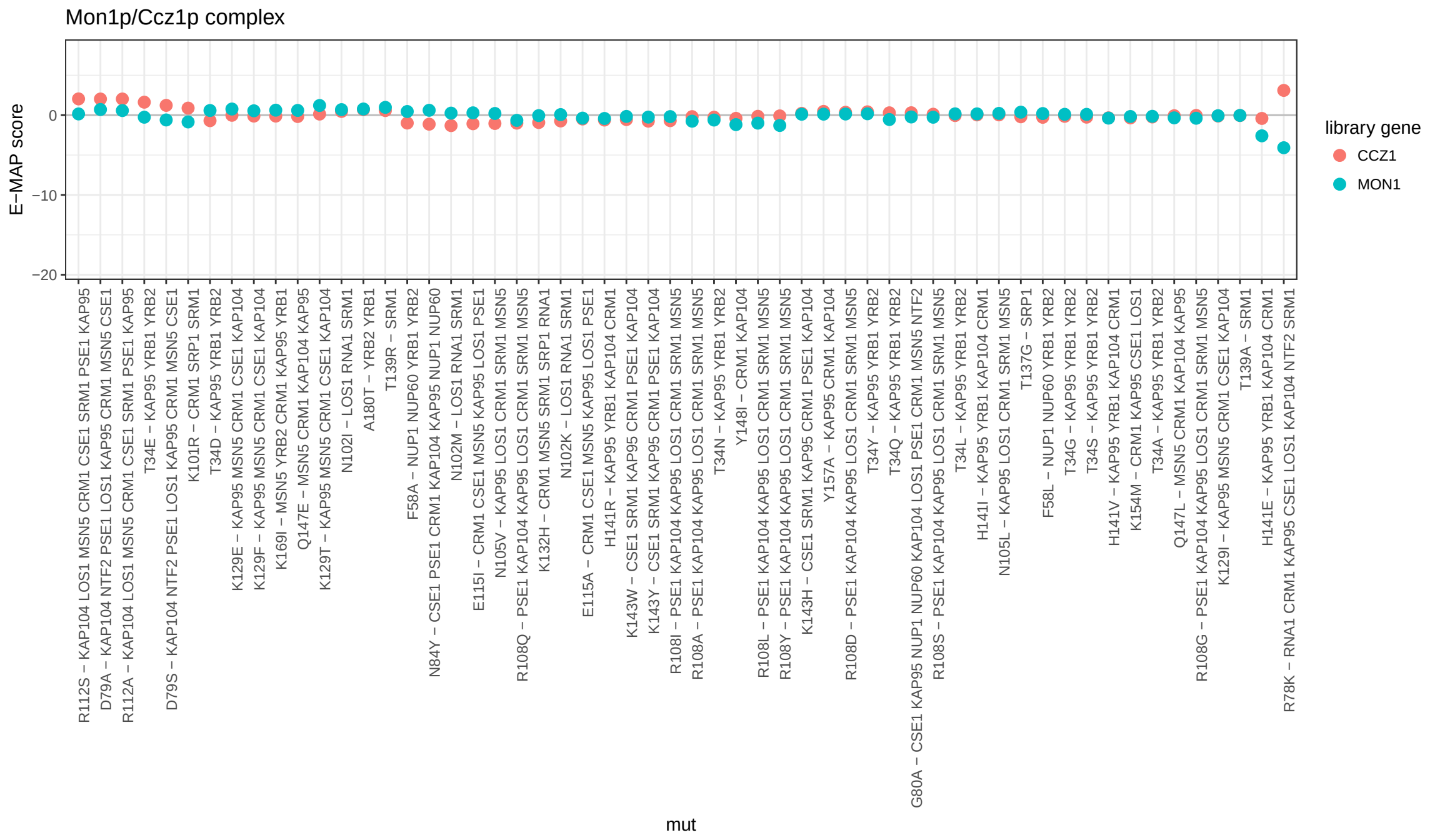

mitochondrial pyruvate dehydrogenase complex
E−MAP score
0
−10
−20
library gene
PDB1
PTC5
PDX1
PKP1
PDA1
LAT1
LPD1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – KAP95 YRB2 YRB1
Y148I – CRM1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
F58L – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102K – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34S – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
T34A – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
mut

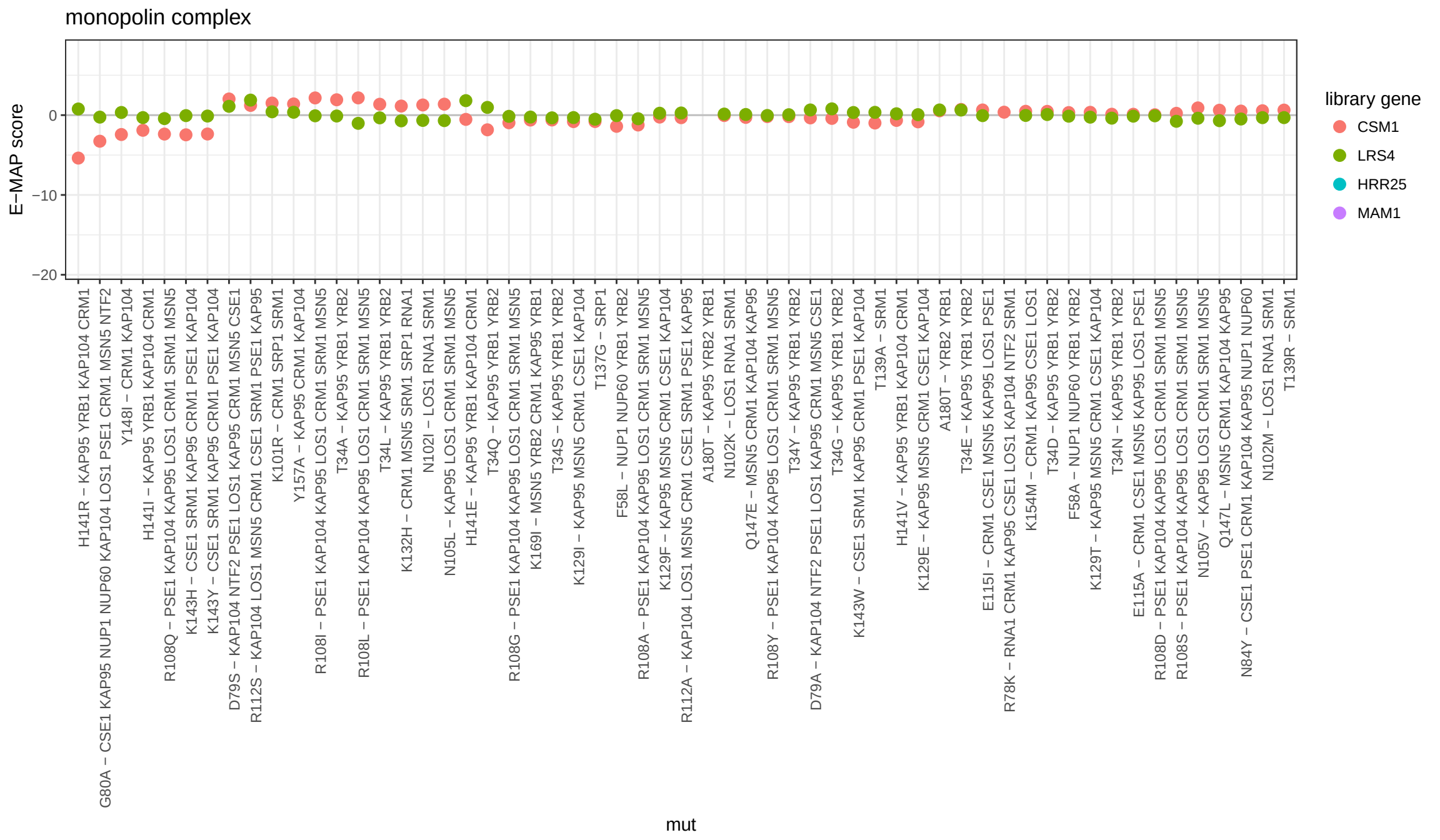

mitochondrial sorting and assembly machinery complex
E−MAP score
0
−10
−20
library gene
SAM37
MDM10
SAM35
SAM50
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34L – KAP95 YRB1 YRB2
T139R – SRM1
Y157A – KAP95 CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34S – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
A180T – KAP95 YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

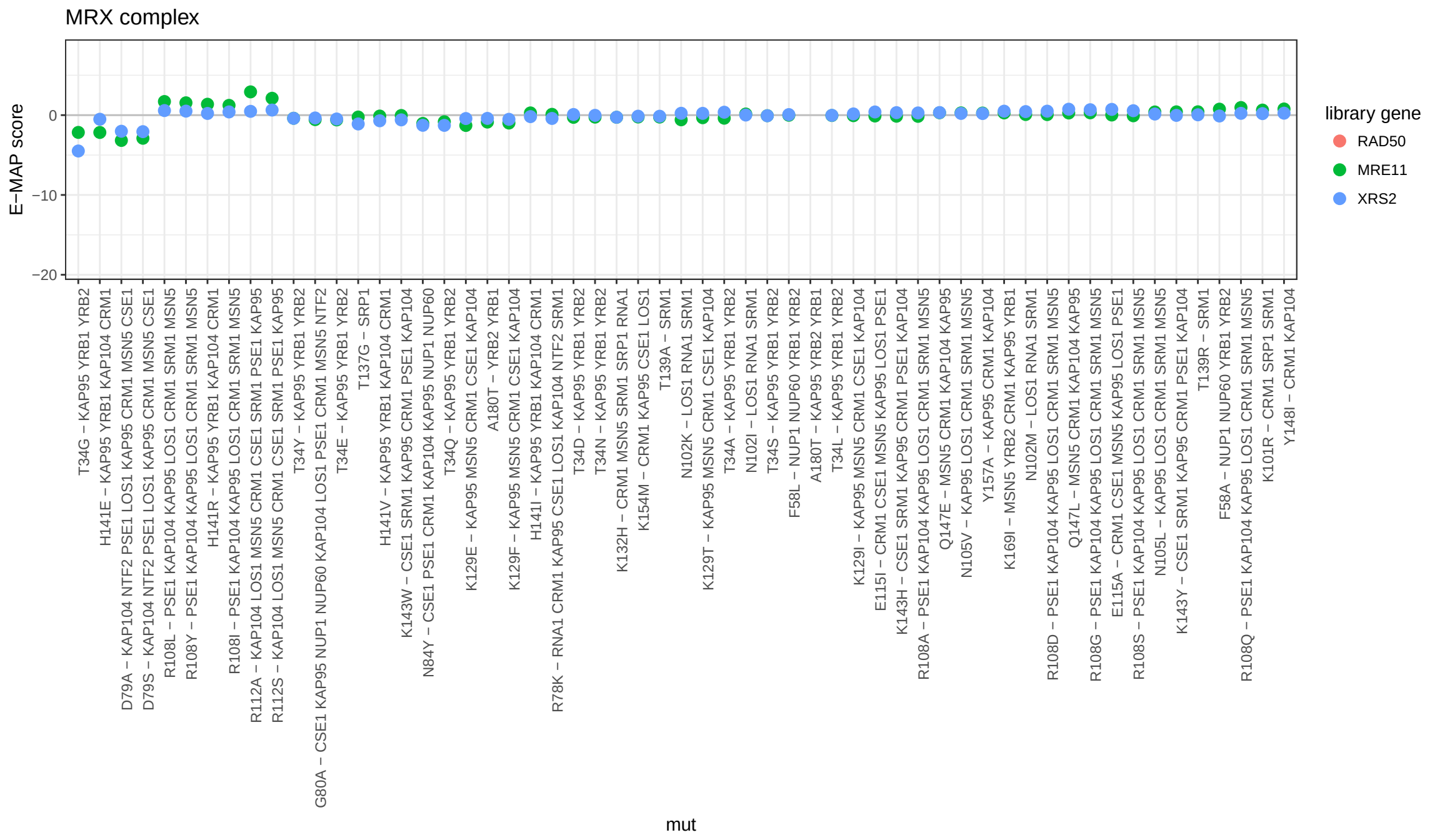

mitochondrial translation
E−MAP score
0
−10
−20
library gene
PTH1
AEP2
MDM38
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
T139A – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y157A – KAP95 CRM1 KAP104
N102K – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
mut

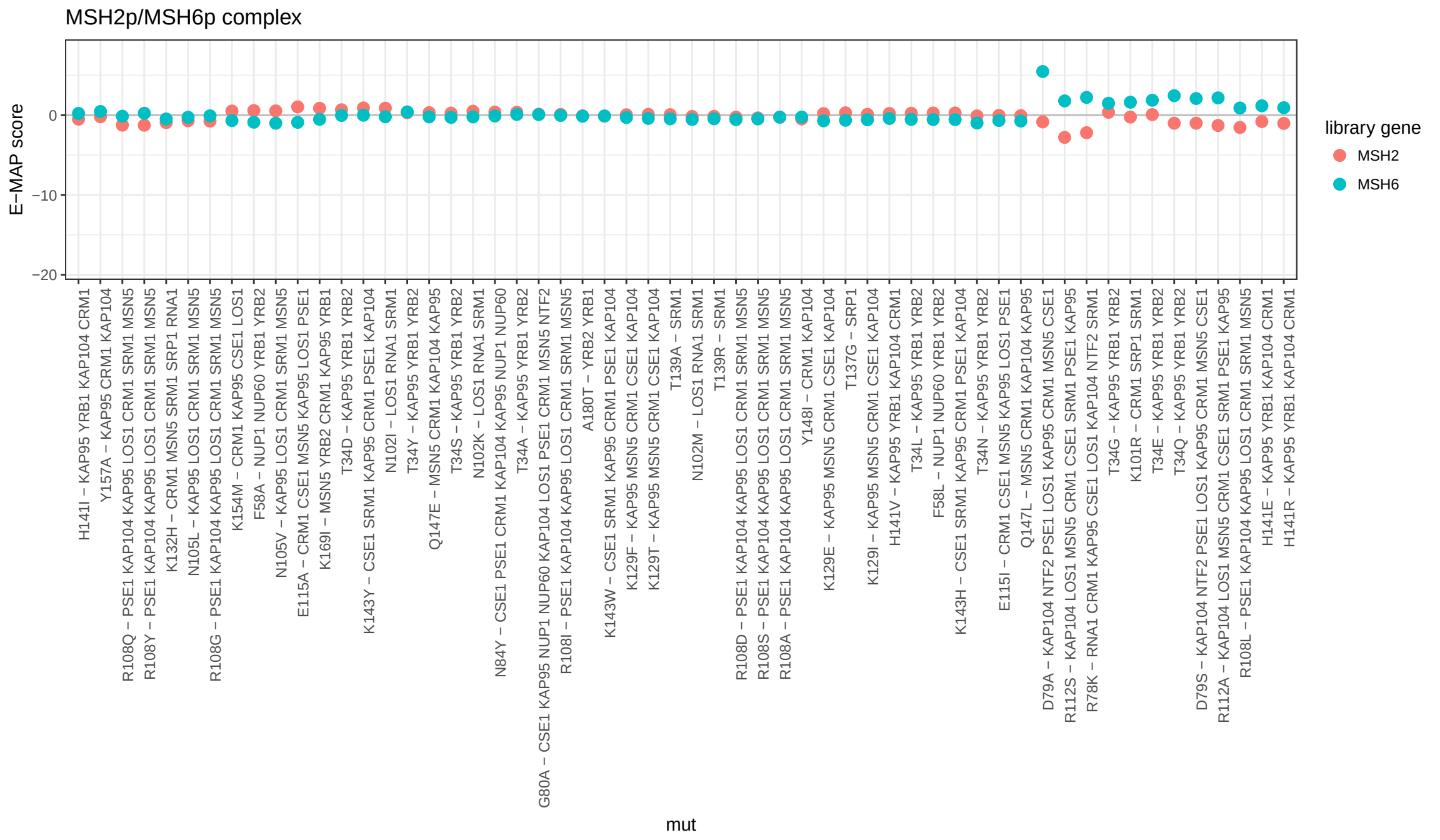

mitotic checkpoint complex
E−MAP score
0
−10
−20
library gene
BUB3
CDC20
MAD2
MAD3
H141E – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
A180T – YRB2 YRB1
T34Y – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
H141R – KAP95 YRB1 KAP104 CRM1
T34D – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
Y157A – KAP95 CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141V – KAP95 YRB1 KAP104 CRM1
T34S – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
N102I – LOS1 RNA1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
mut

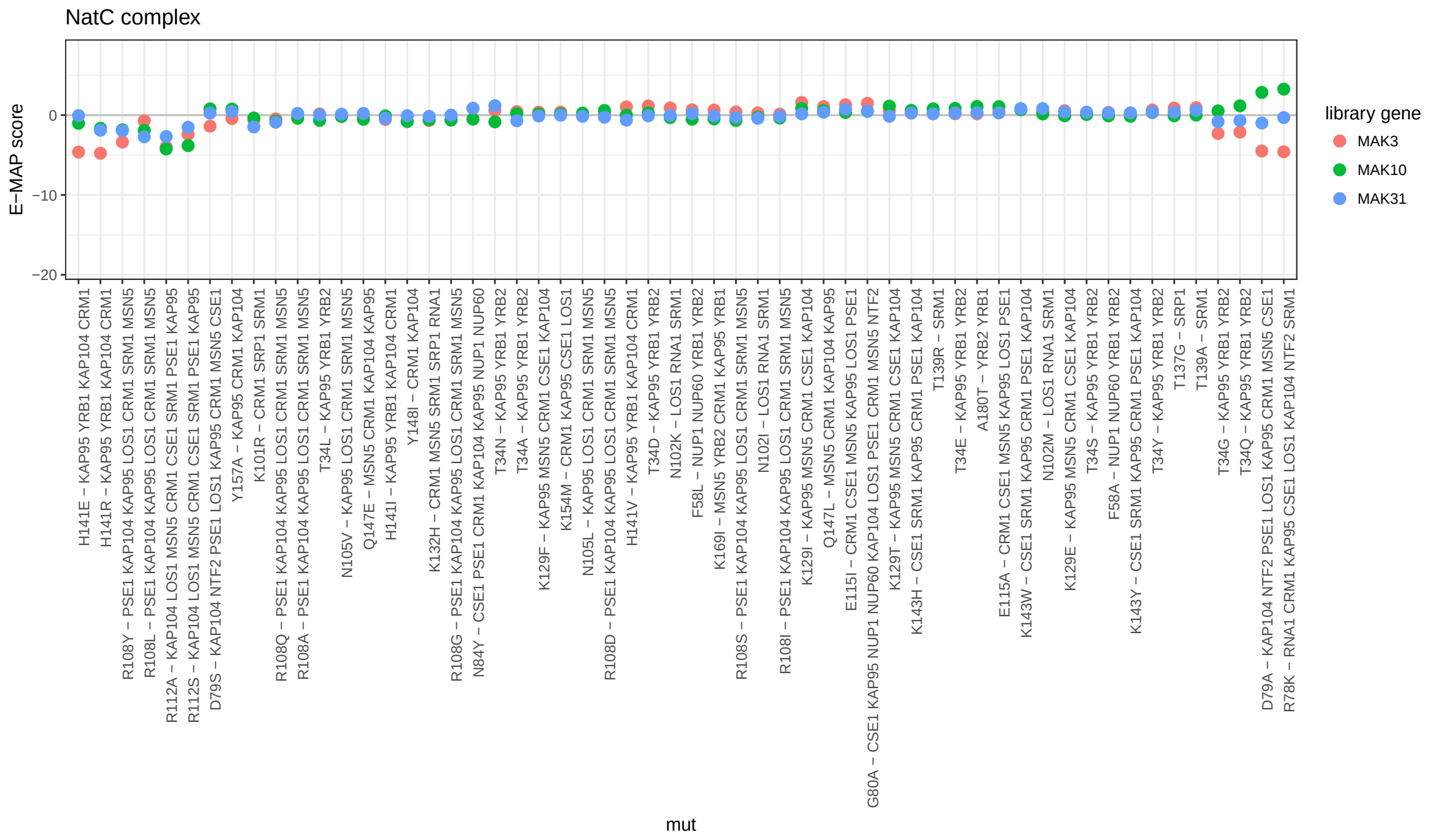

Mks1p/Rtg2p complex
E−MAP score
0
−10
−20
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T137G – SRP1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102K – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
K154M – CRM1 KAP95 CSE1 LOS1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
N102M – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
Y148I – CRM1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K101R – CRM1 SRP1 SRM1
T34S – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T34N – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
F58L – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut
library gene
MKS1
RTG2

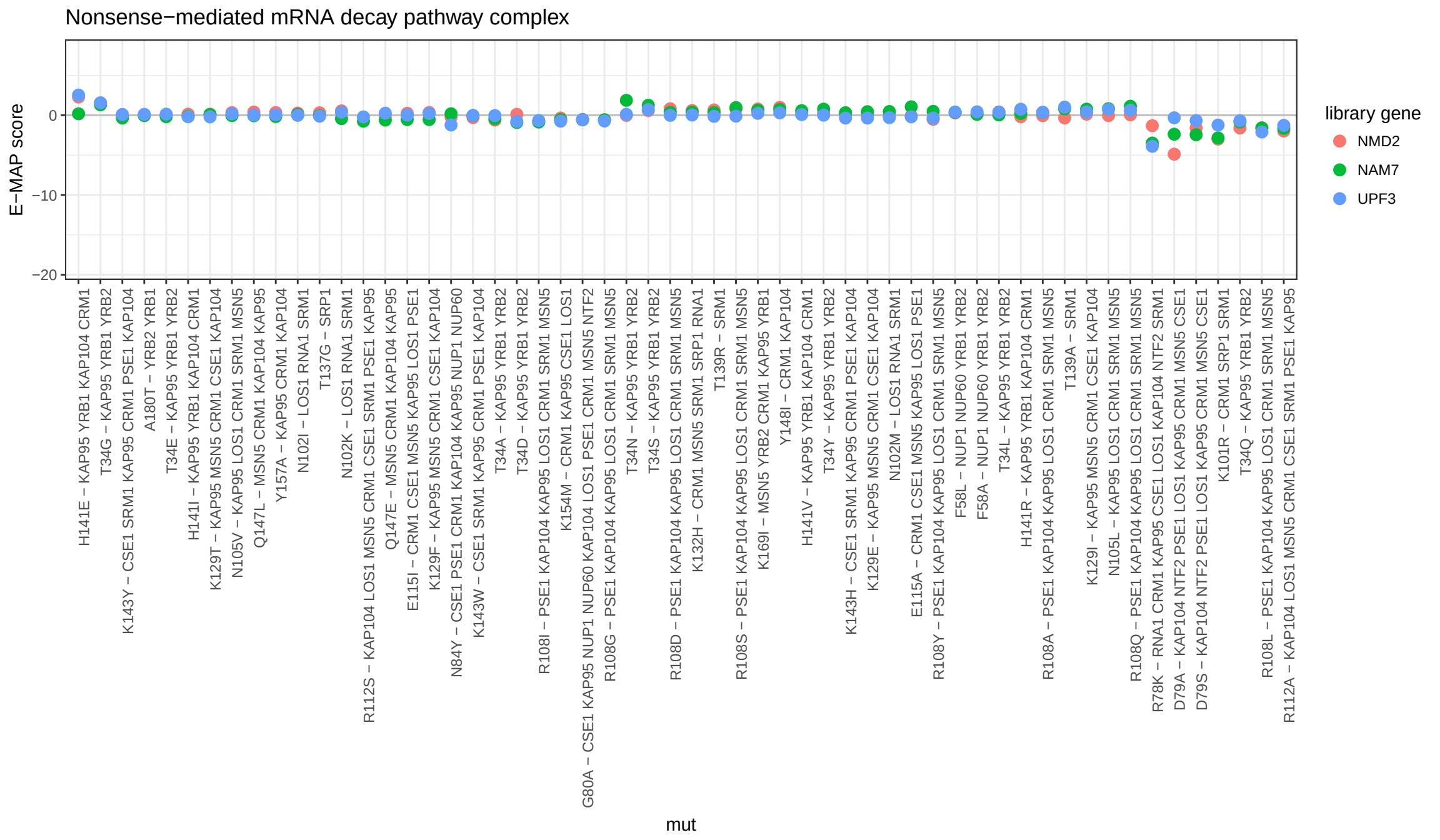

Mon1p/Ccz1p complex
E−MAP score
0
−10
−20
library gene
CCZ1
MON1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34D – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102K – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141R – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y157A – KAP95 CRM1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
T34A – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut

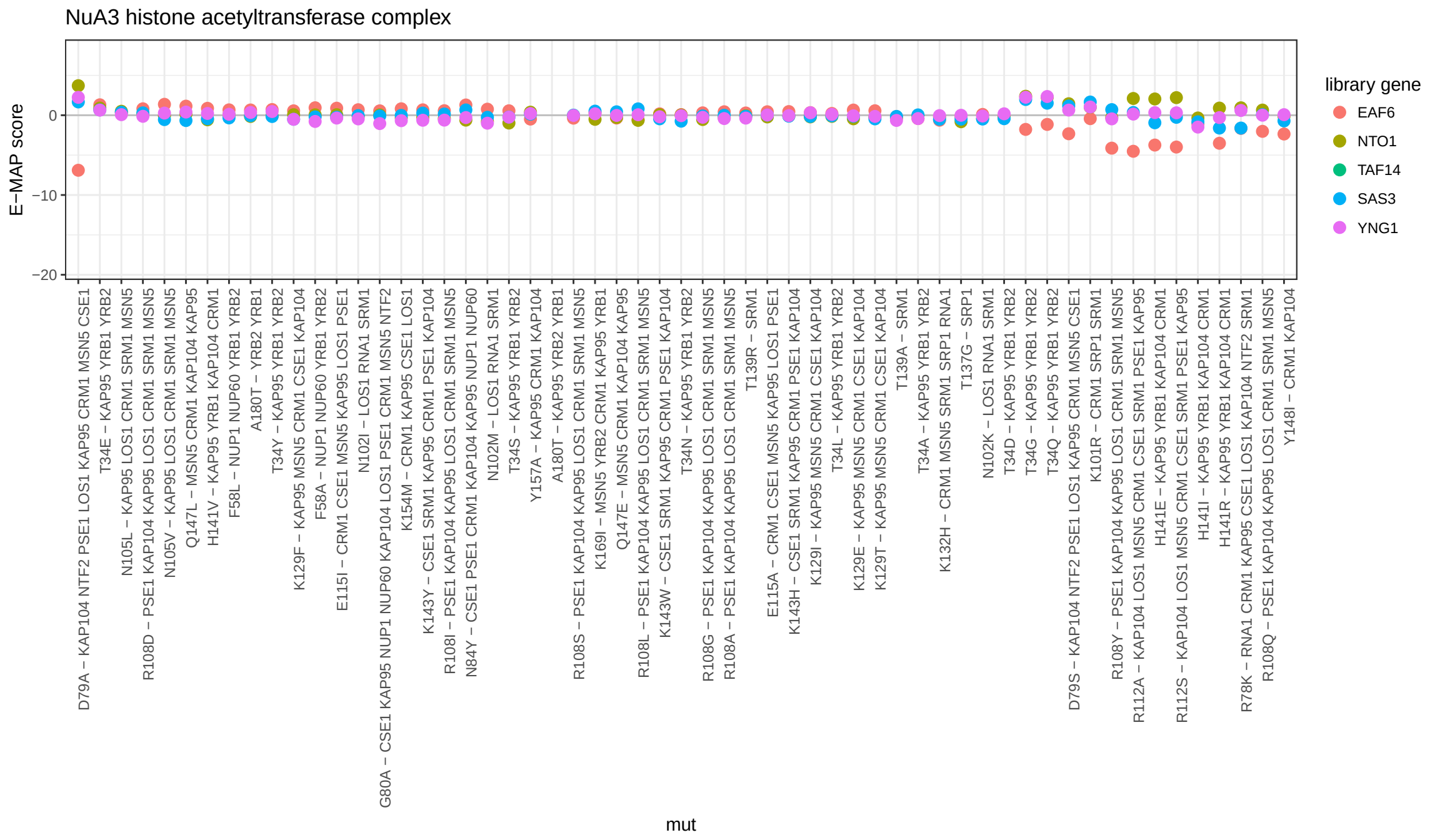

monopolin complex
E−MAP score
0
−10
−20
mut
library gene
CSM1
LRS4
HRR25
MAM1
H141R – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
A180T – KAP95 YRB2 YRB1
N102K – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
T34E – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
T139R – SRM1

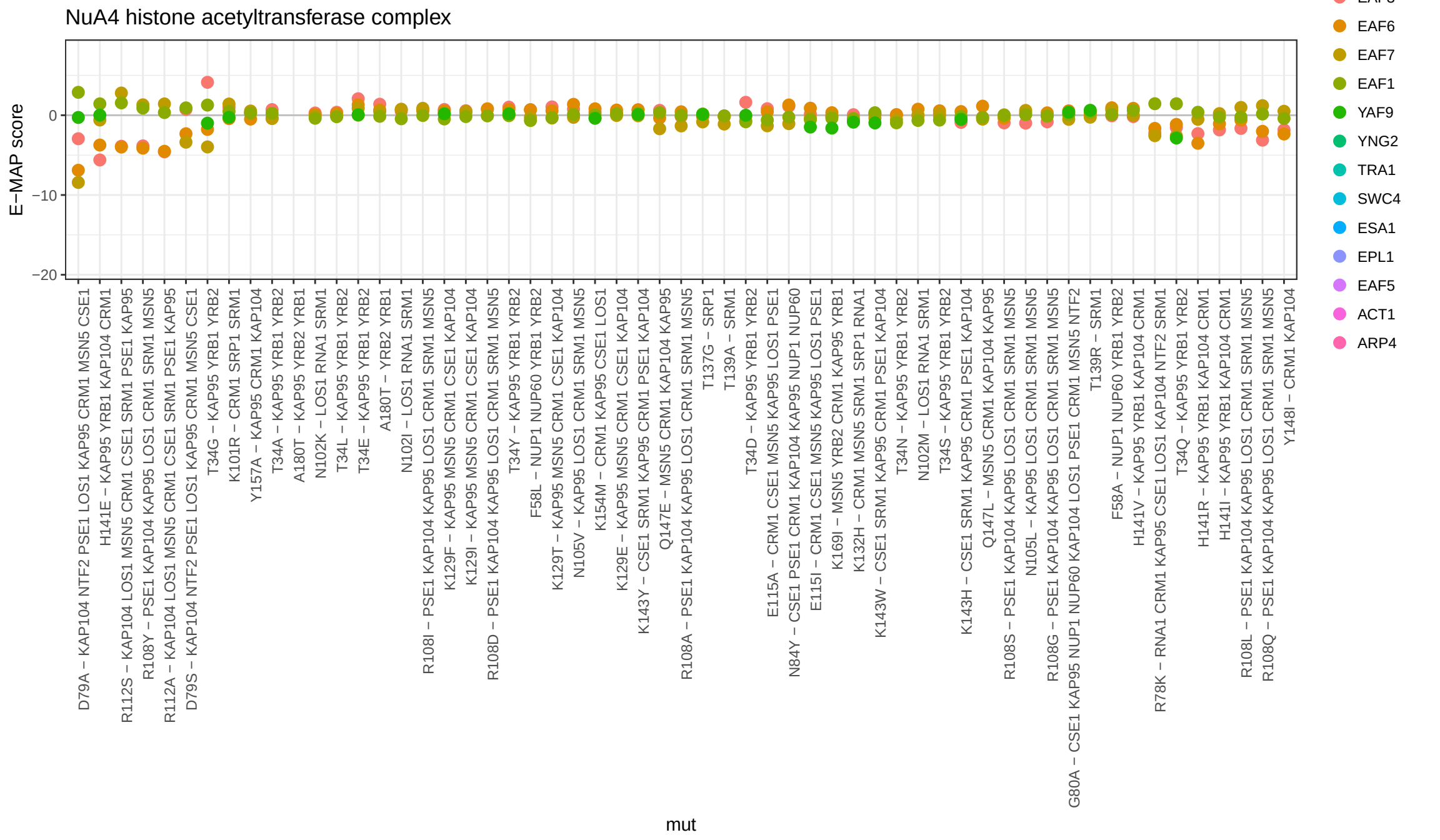

MRX complex
E−MAP score
0
−10
−20
mut
T34G – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34E – KAP95 YRB1 YRB2
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Q – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34D – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
N102K – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
T34L – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
Y148I – CRM1 KAP104
library gene
RAD50
MRE11
XRS2

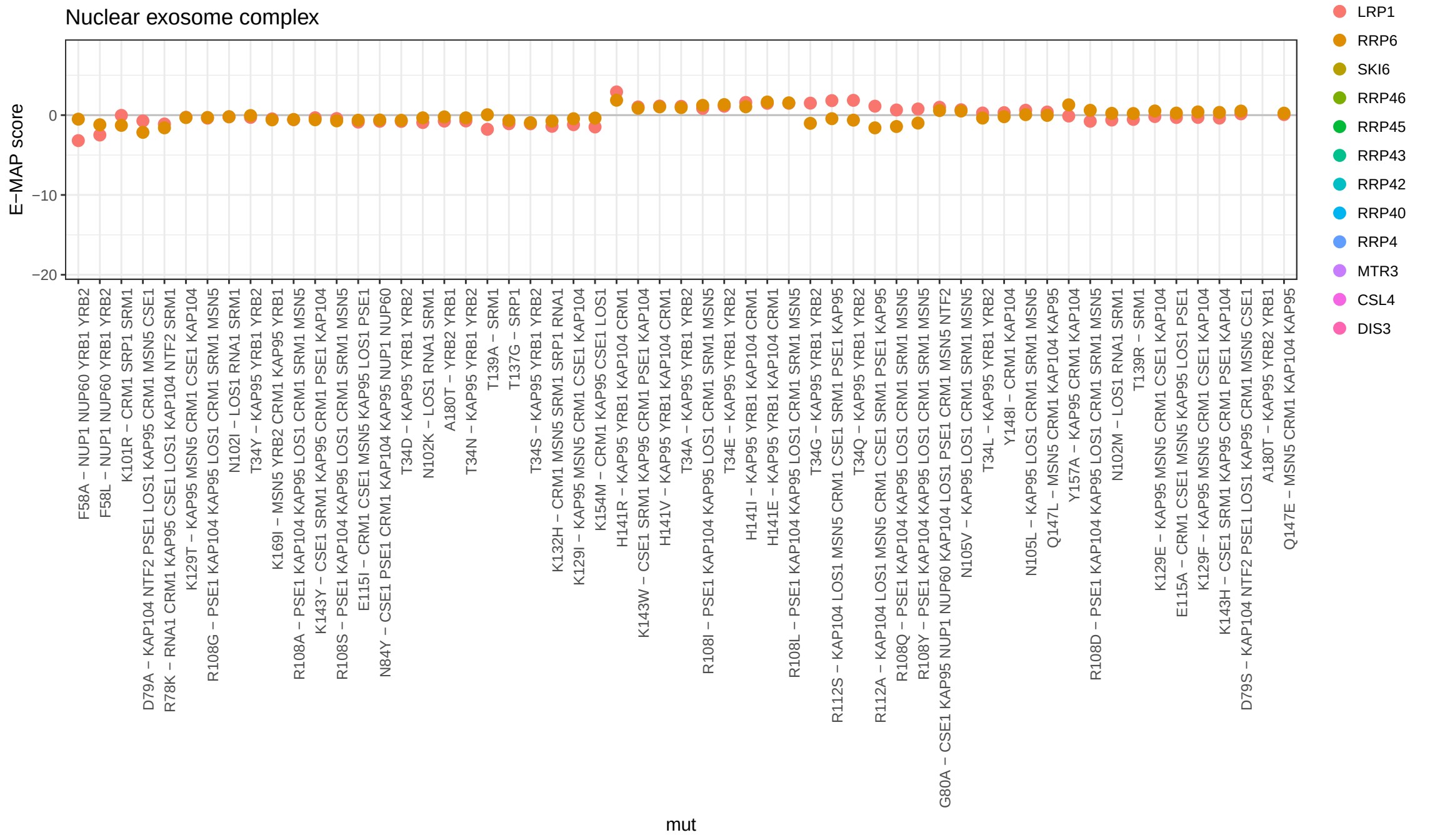

MSH2p/MSH6p complex
E−MAP score
0
−10
−20
mut
library gene
MSH2
MSH6
H141I – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34D – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T34S – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34A – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
N102M – LOS1 RNA1 SRM1
T139R – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1

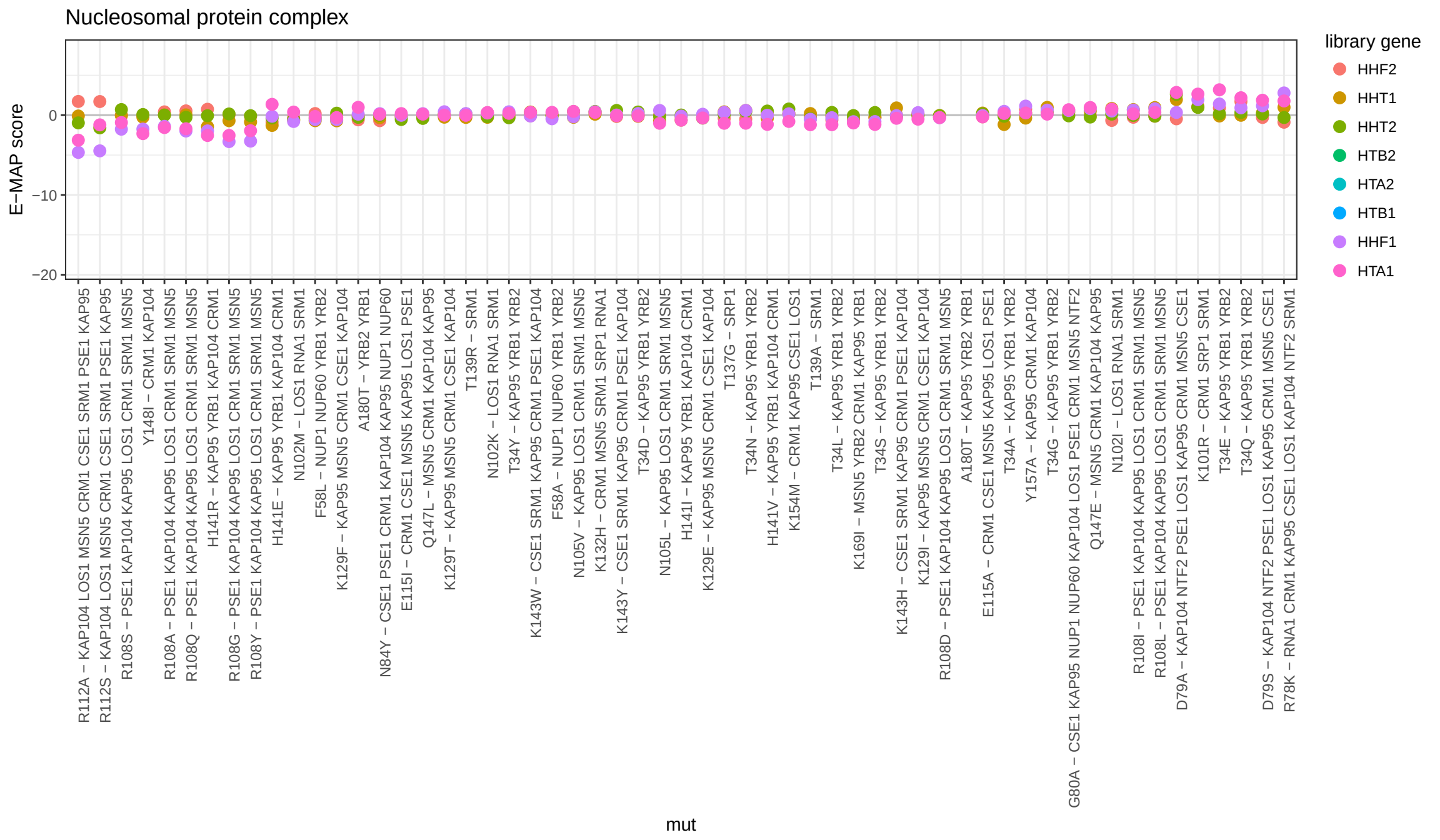

NatC complex
E−MAP score
0
−10
−20
library gene
MAK3
MAK10
MAK31
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
K101R – CRM1 SRP1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
T34E – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
T137G – SRP1
T139A – SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut

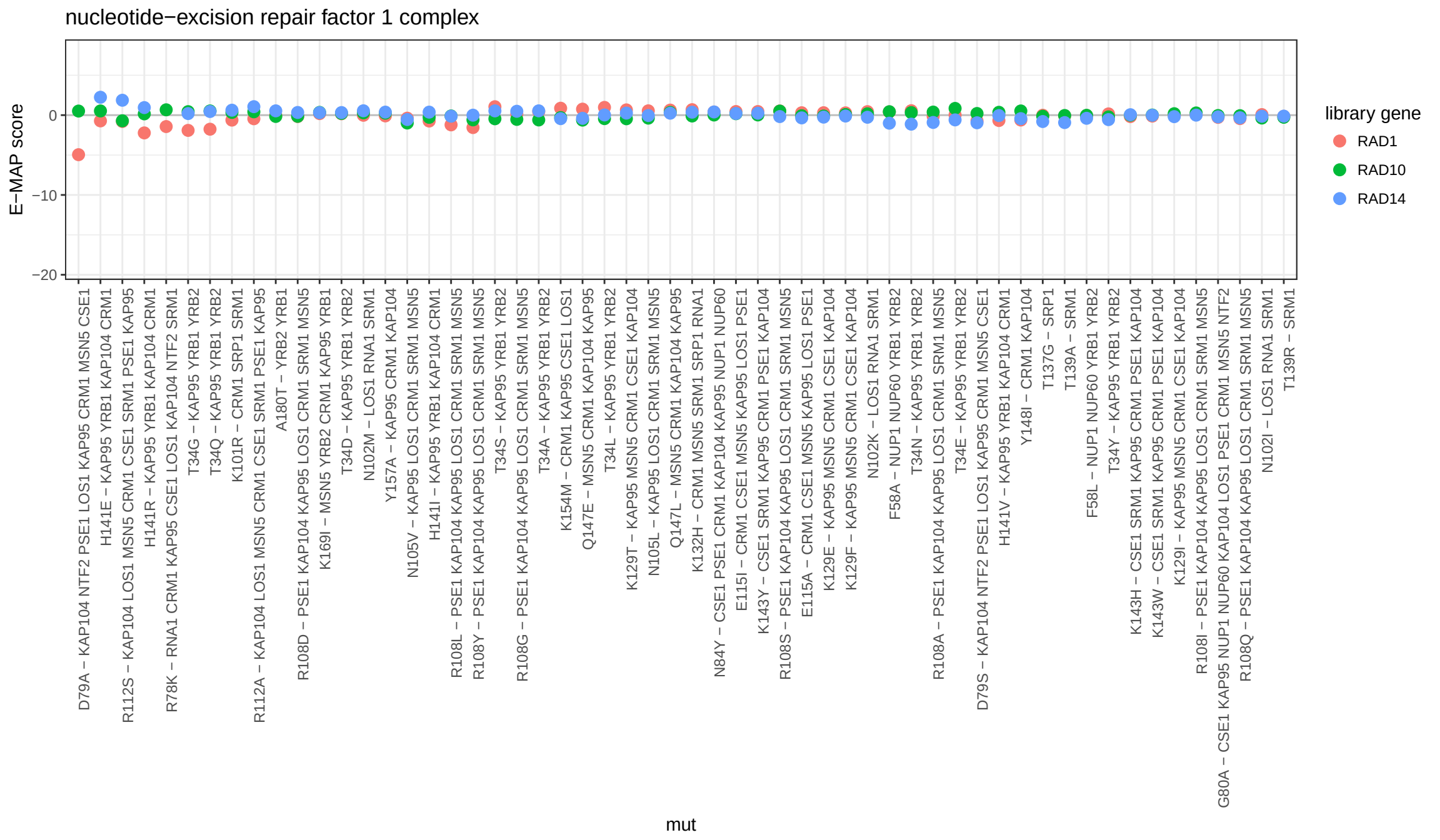

Nonsense−mediated mRNA decay pathway complex
E−MAP score
0
−10
−20
library gene
NMD2
NAM7
UPF3
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
T34E – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
Y157A – KAP95 CRM1 KAP104
N102I – LOS1 RNA1 SRM1
T137G – SRP1
N102K – LOS1 RNA1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Q147E – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139R – SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
T34Y – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
mut

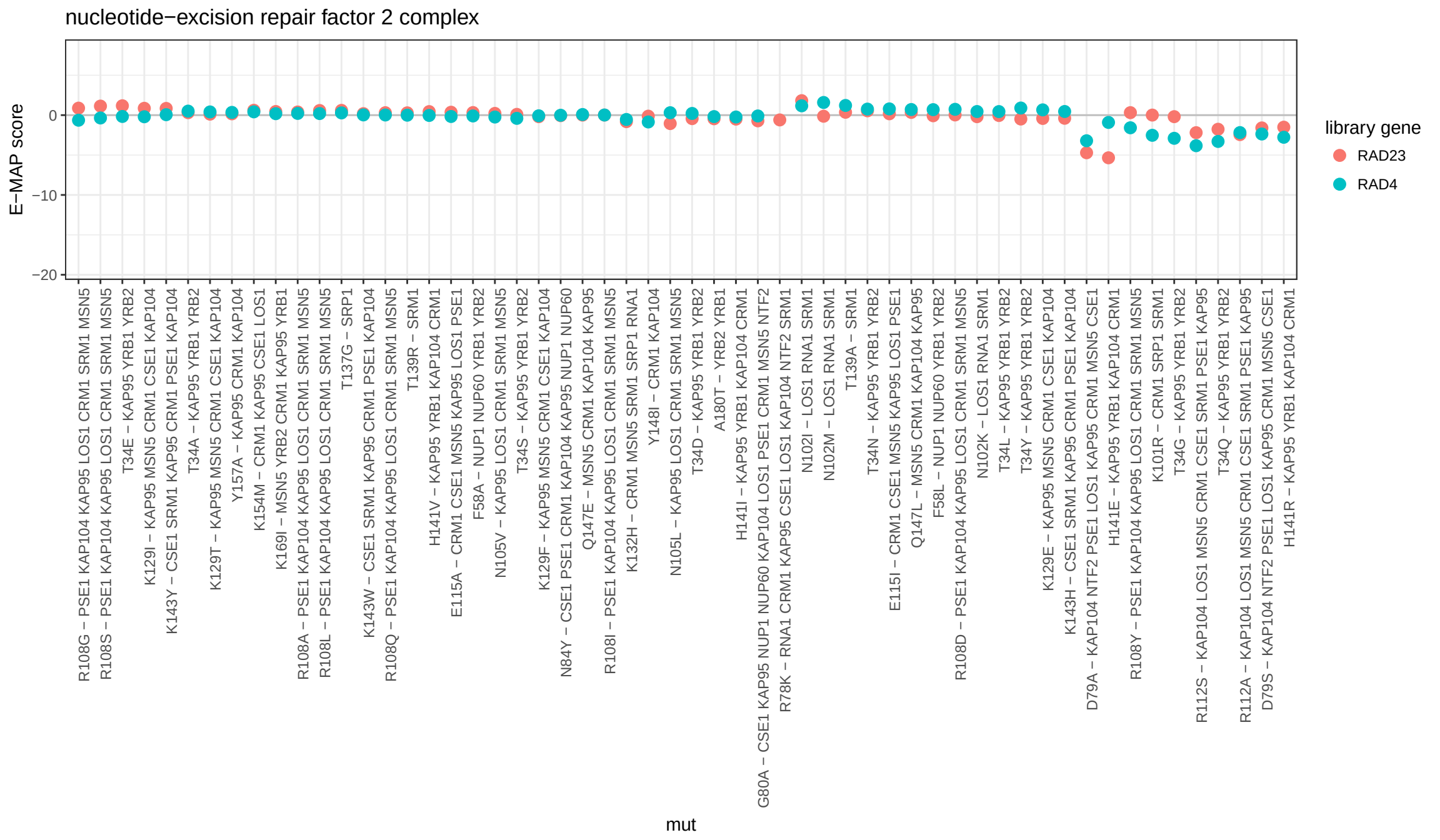

NuA3 histone acetyltransferase complex
E−MAP score
0
−10
−20
mut
library gene
EAF6
NTO1
TAF14
SAS3
YNG1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
F58L – NUP1 NUP60 YRB1 YRB2
A180T – YRB2 YRB1
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K154M – CRM1 KAP95 CSE1 LOS1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
A180T – KAP95 YRB2 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
T34A – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T137G – SRP1
N102K – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104

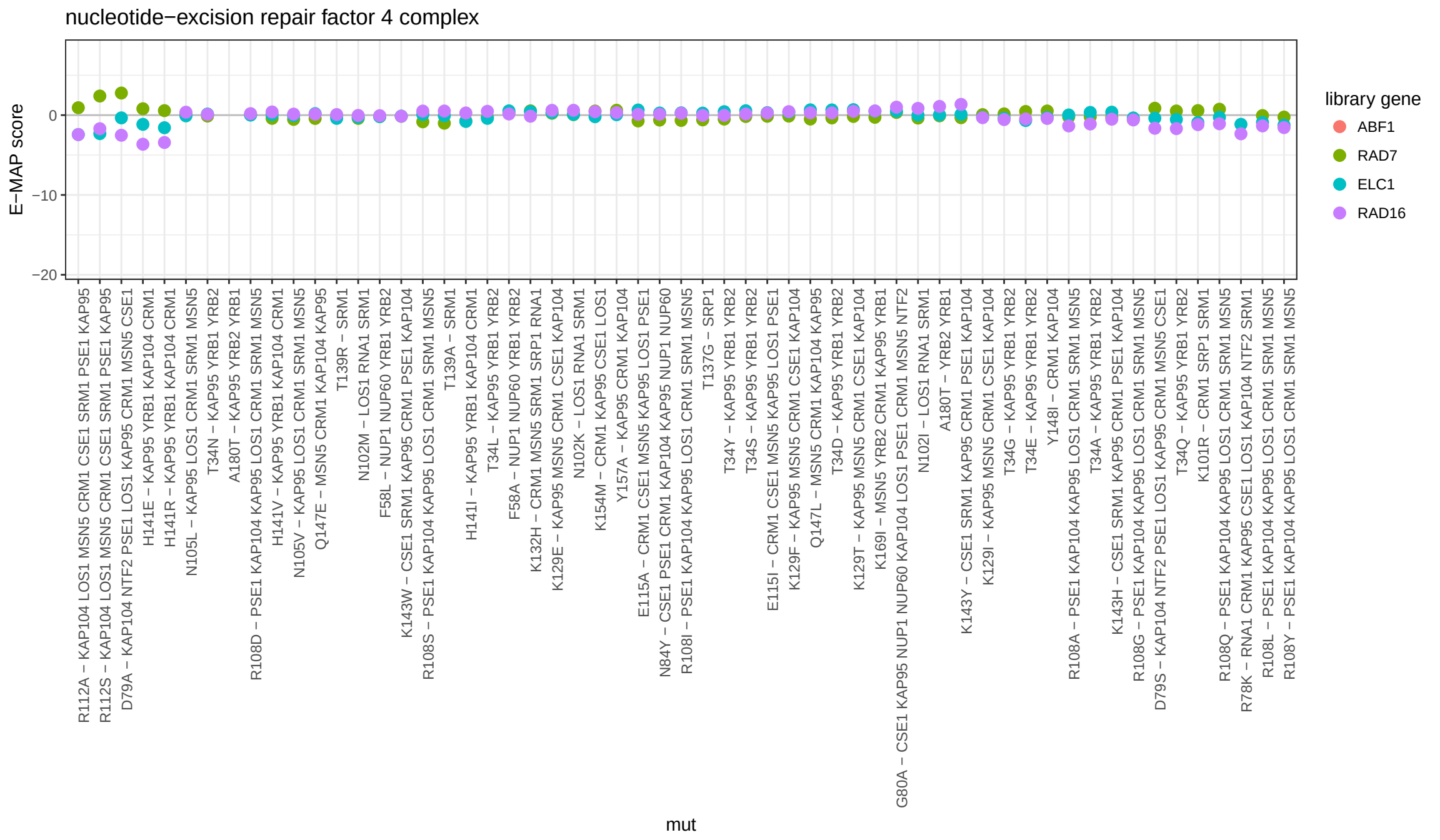

NuA4 histone acetyltransferase complex
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
T34A – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T139A – SRM1
T34D – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34N – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
EAF6
EAF7
EAF1
YAF9
YNG2
TRA1
SWC4
ESA1
EPL1
EAF5
ACT1
ARP4

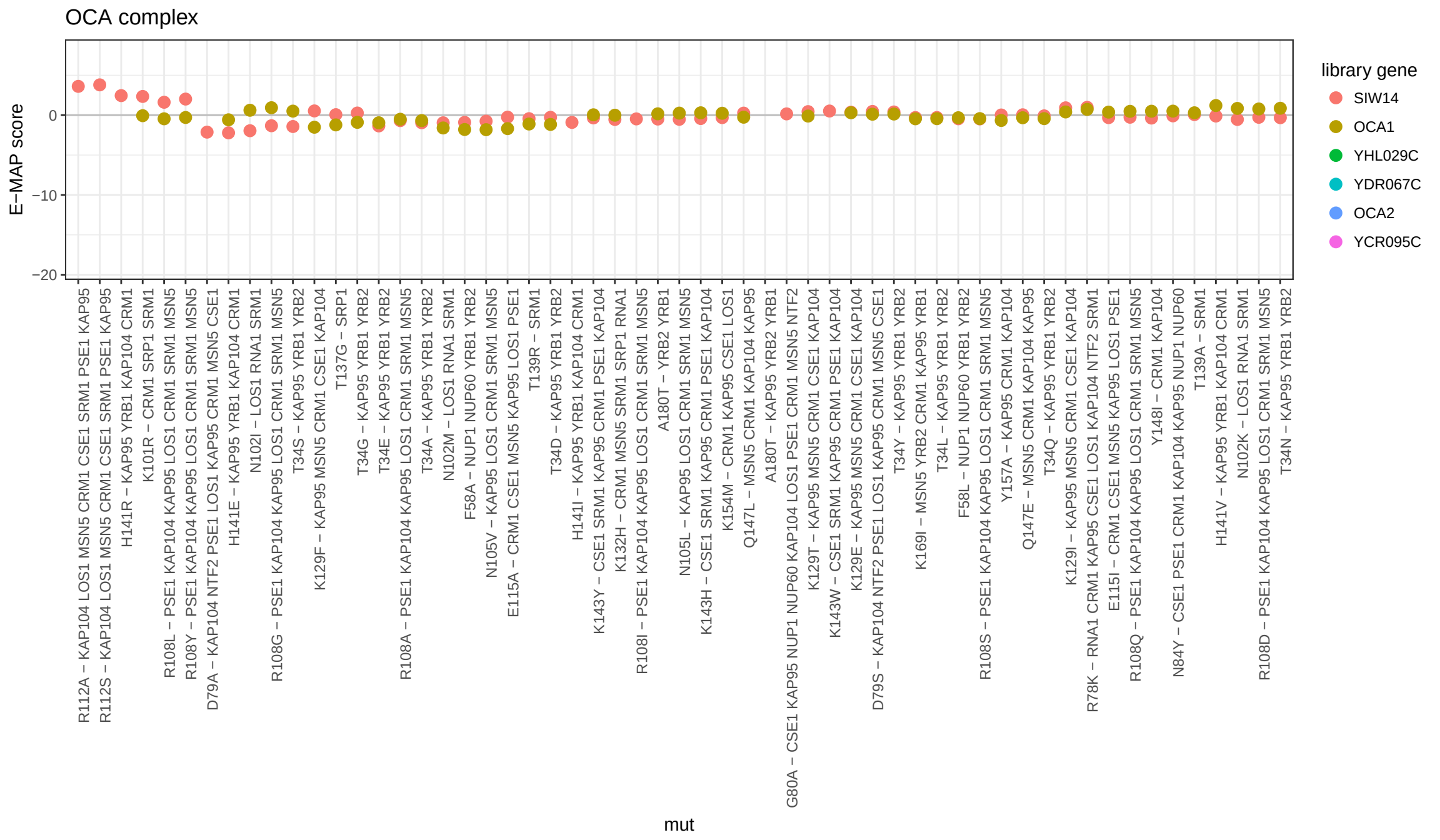

Nuclear exosome complex
E−MAP score
0
−10
−20
mut
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
T34N – KAP95 YRB1 YRB2
T139A – SRM1
T137G – SRP1
T34S – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
H141R – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
H141E – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
Y157A – KAP95 CRM1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
T139R – SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
A180T – KAP95 YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
LRP1
RRP6
SKI6
RRP46
RRP45
RRP43
RRP42
RRP40
RRP4
MTR3
CSL4
DIS3

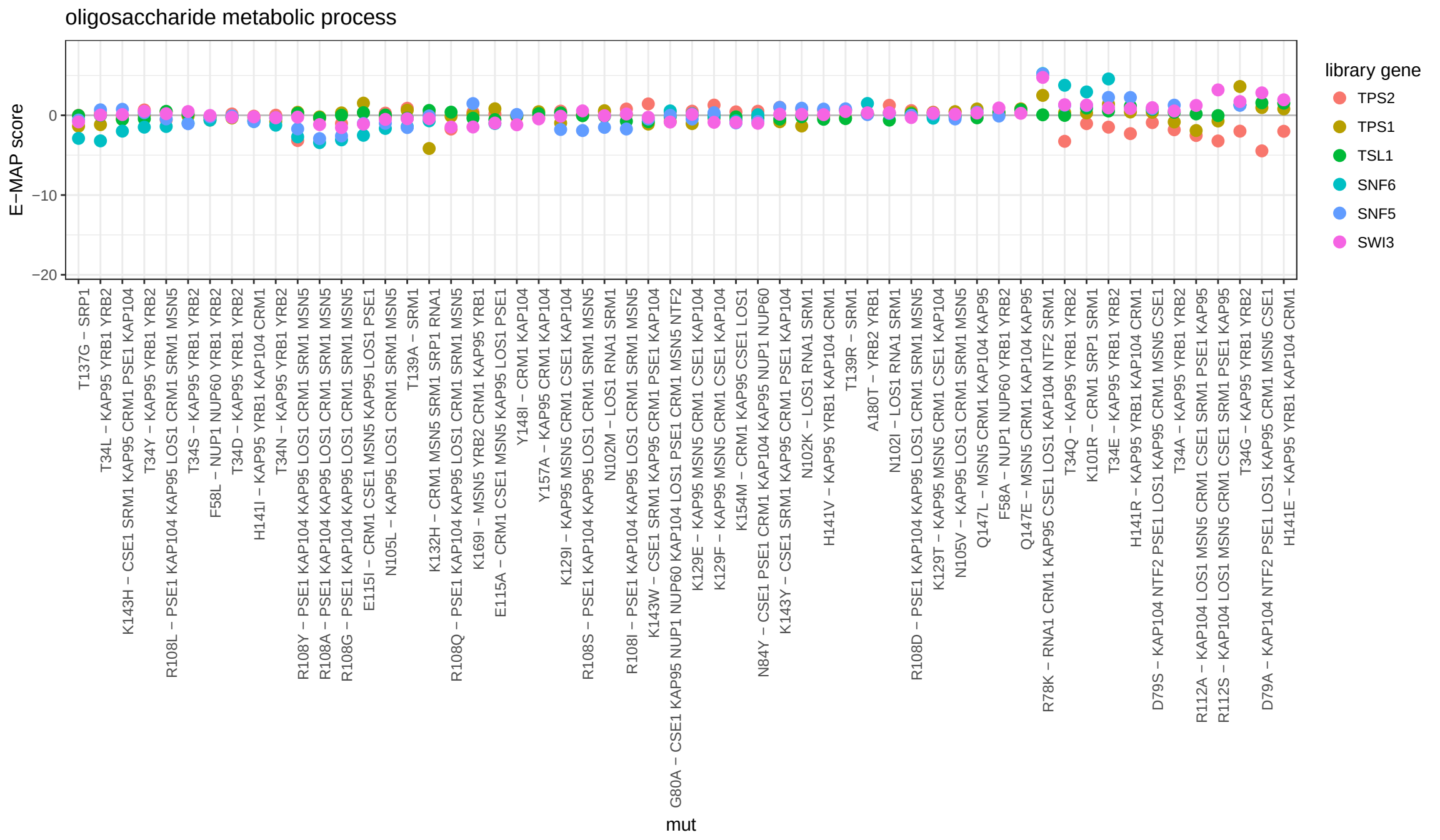

Nucleosomal protein complex
E−MAP score
0
−10
−20
library gene
HHF2
HHT1
HHT2
HTB2
HTA2
HTB1
HHF1
HTA1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
N102M – LOS1 RNA1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
N102K – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
T34N – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34A – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
T34G – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut

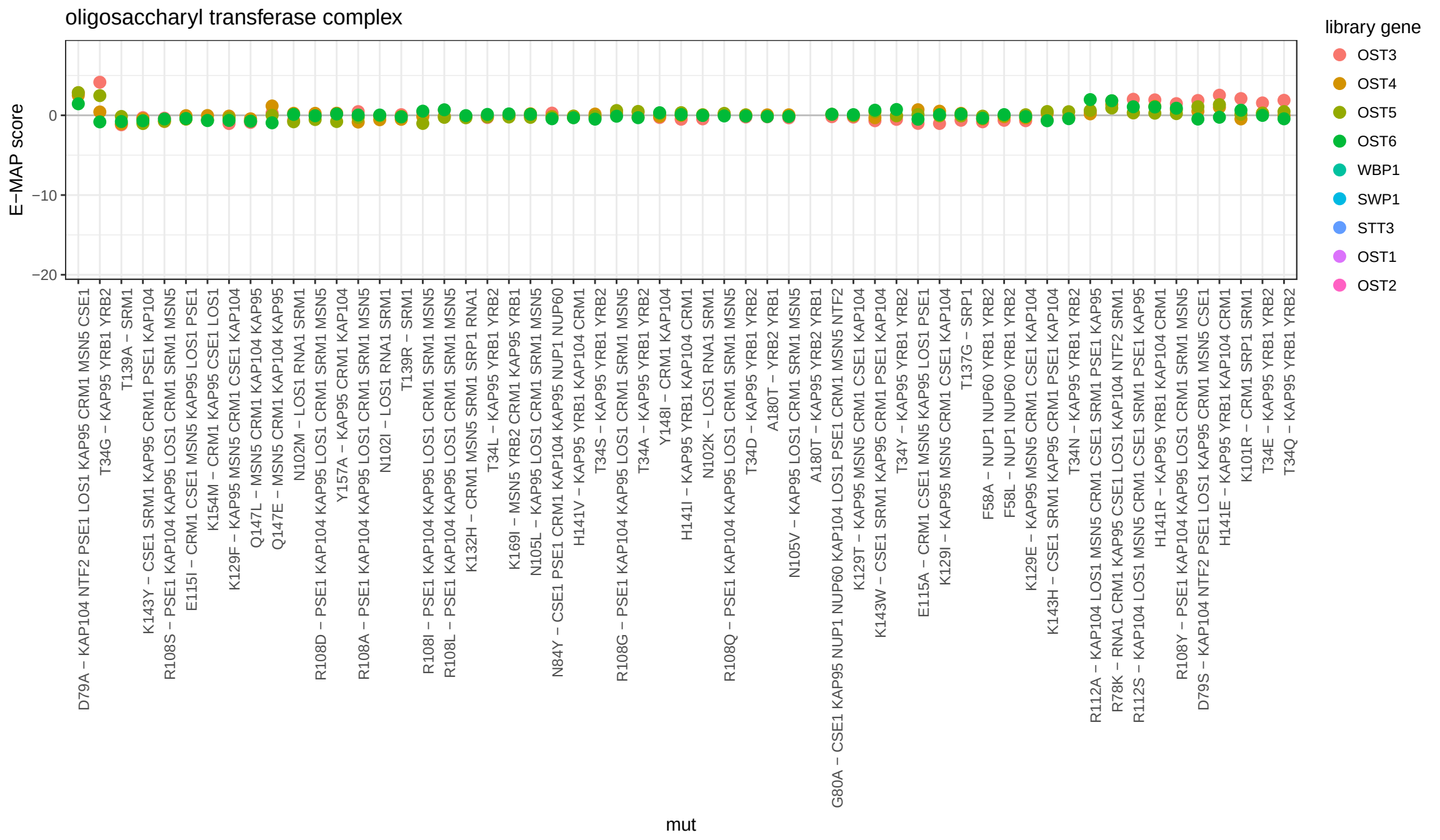

nucleotide−excision repair factor 1 complex
E−MAP score
0
−10
−20
library gene
RAD1
RAD10
RAD14
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34D – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
Y157A – KAP95 CRM1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
Q147E – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141V – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
T137G – SRP1
T139A – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T139R – SRM1
mut

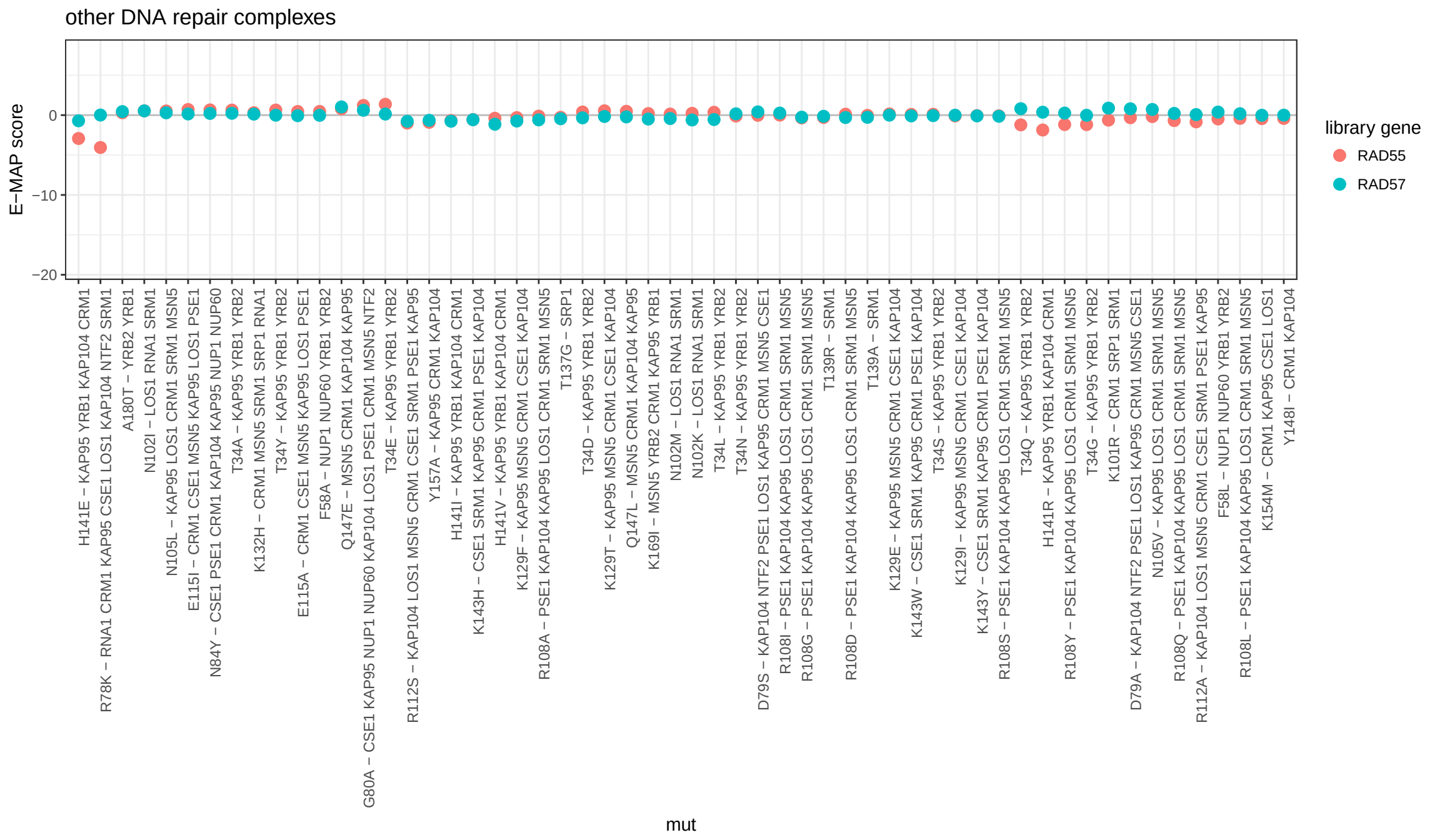

nucleotide−excision repair factor 2 complex
E−MAP score
0
−10
−20
mut
library gene
RAD23
RAD4
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147E – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
Y148I – CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
H141I – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N102I – LOS1 RNA1 SRM1
N102M – LOS1 RNA1 SRM1
T139A – SRM1
T34N – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1

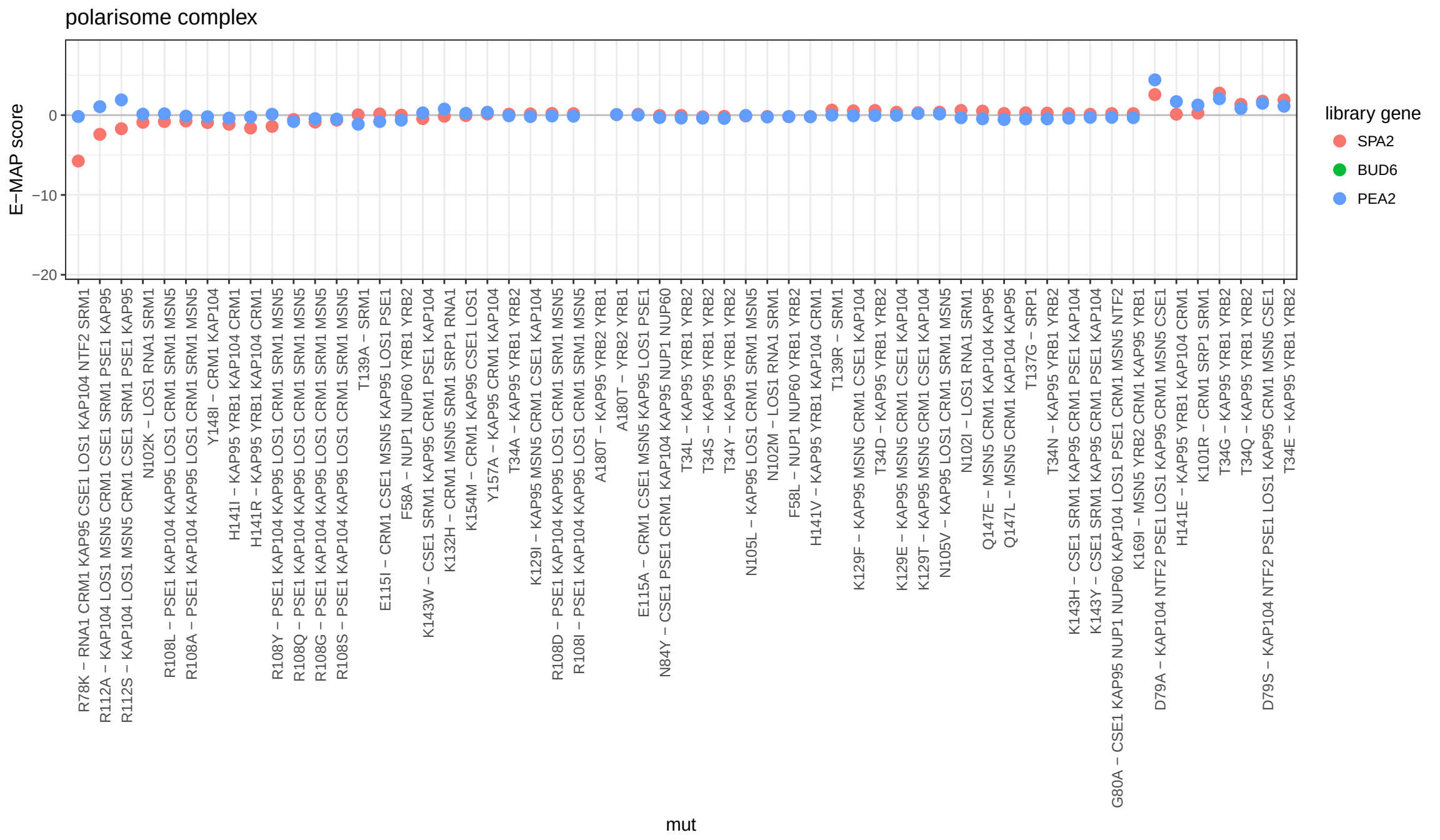

nucleotide−excision repair factor 4 complex
E−MAP score
0
−10
−20
library gene
ABF1
RAD7
ELC1
RAD16
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
N102M – LOS1 RNA1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
H141I – KAP95 YRB1 KAP104 CRM1
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
Y157A – KAP95 CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T34Y – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102I – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

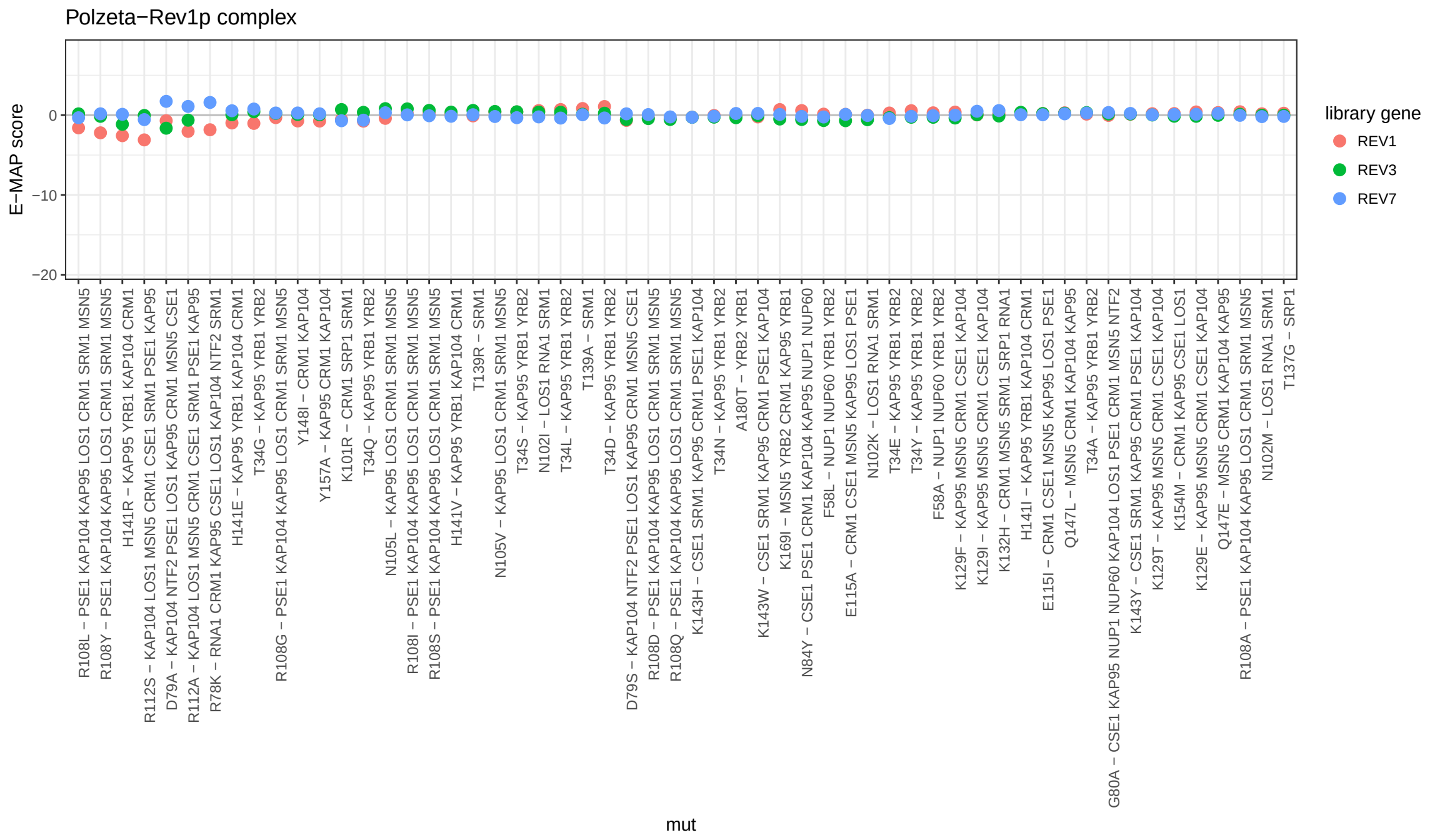

OCA complex
E−MAP score
0
−10
−20
mut
library gene
SIW14
OCA1
YHL029C
YDR067C
OCA2
YCR095C
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
N102I – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139R – SRM1
T34D – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – KAP95 YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Y – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T34Q – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139A – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2

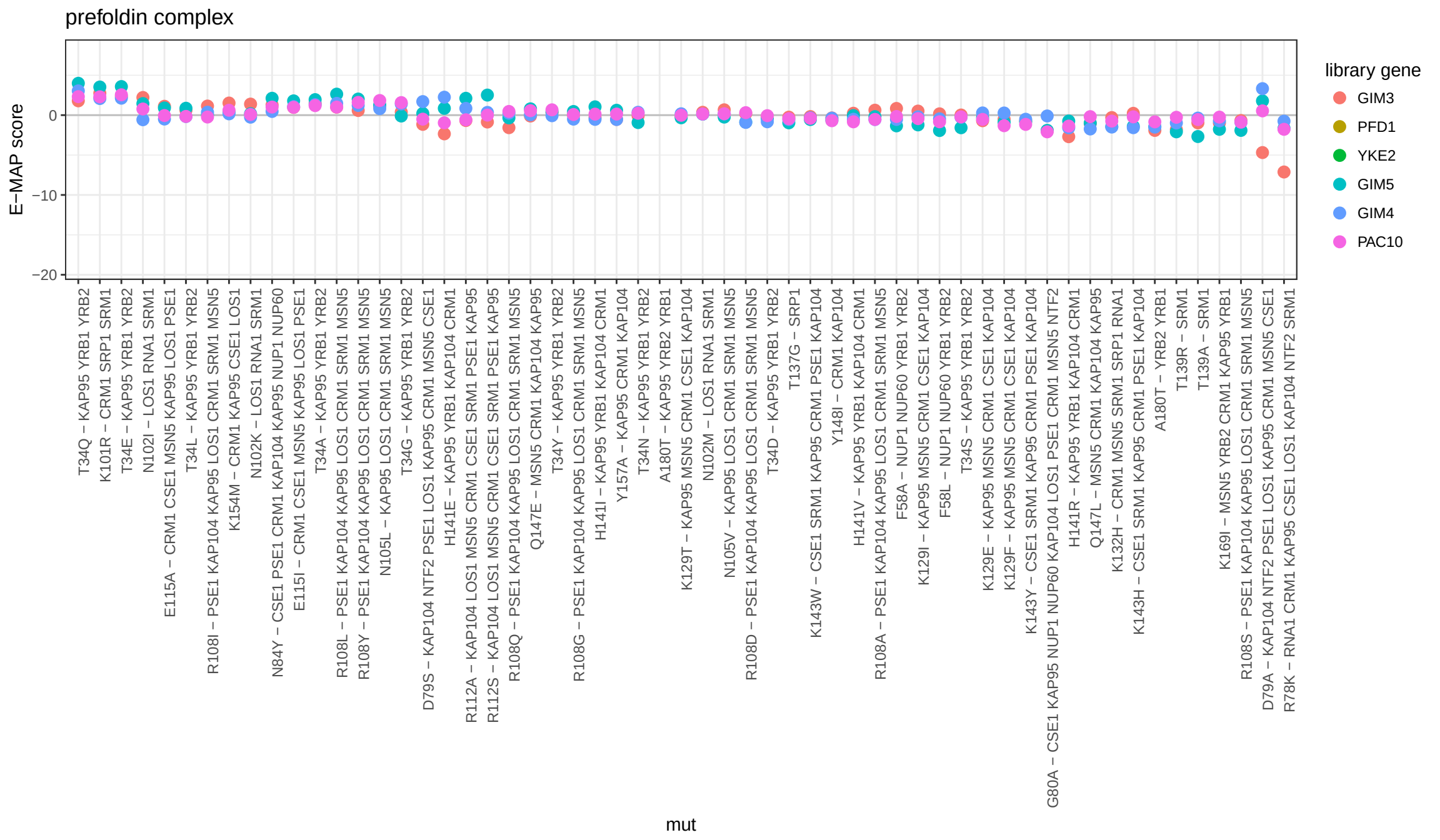

oligosaccharide metabolic process
E−MAP score
0
−10
−20
mut
library gene
TPS2
TPS1
TSL1
SNF6
SNF5
SWI3
T137G – SRP1
T34L – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
T34N – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y148I – CRM1 KAP104
Y157A – KAP95 CRM1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
A180T – YRB2 YRB1
N102I – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
F58A – NUP1 NUP60 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34A – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1

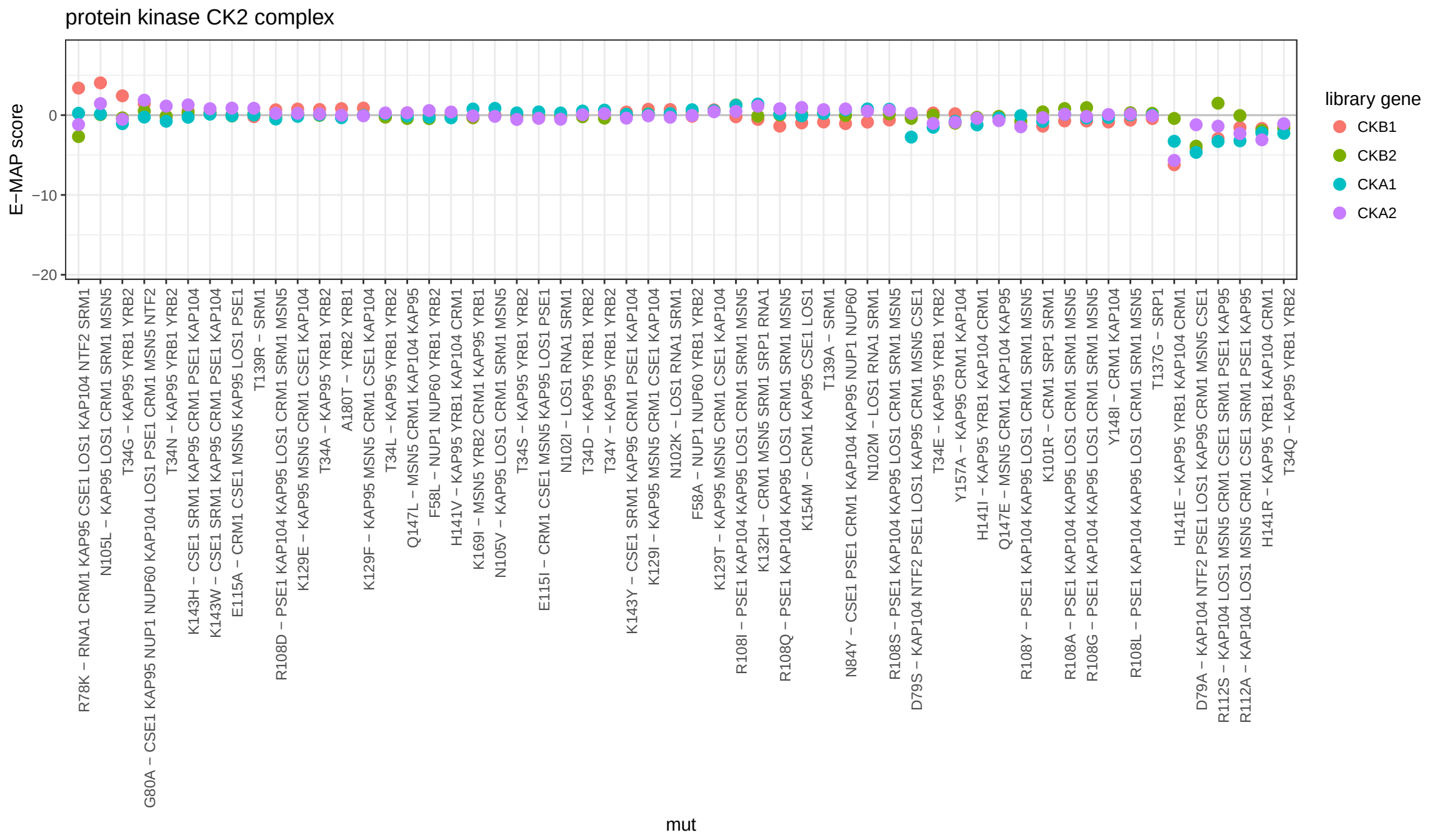

oligosaccharyl transferase complex
E−MAP score
0
−10
−20
mut
library gene
OST3
OST4
OST5
OST6
WBP1
SWP1
STT3
OST1
OST2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
T139A – SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K154M – CRM1 KAP95 CSE1 LOS1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
Q147E – MSN5 CRM1 KAP104 KAP95
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T139R – SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141V – KAP95 YRB1 KAP104 CRM1
T34S – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2

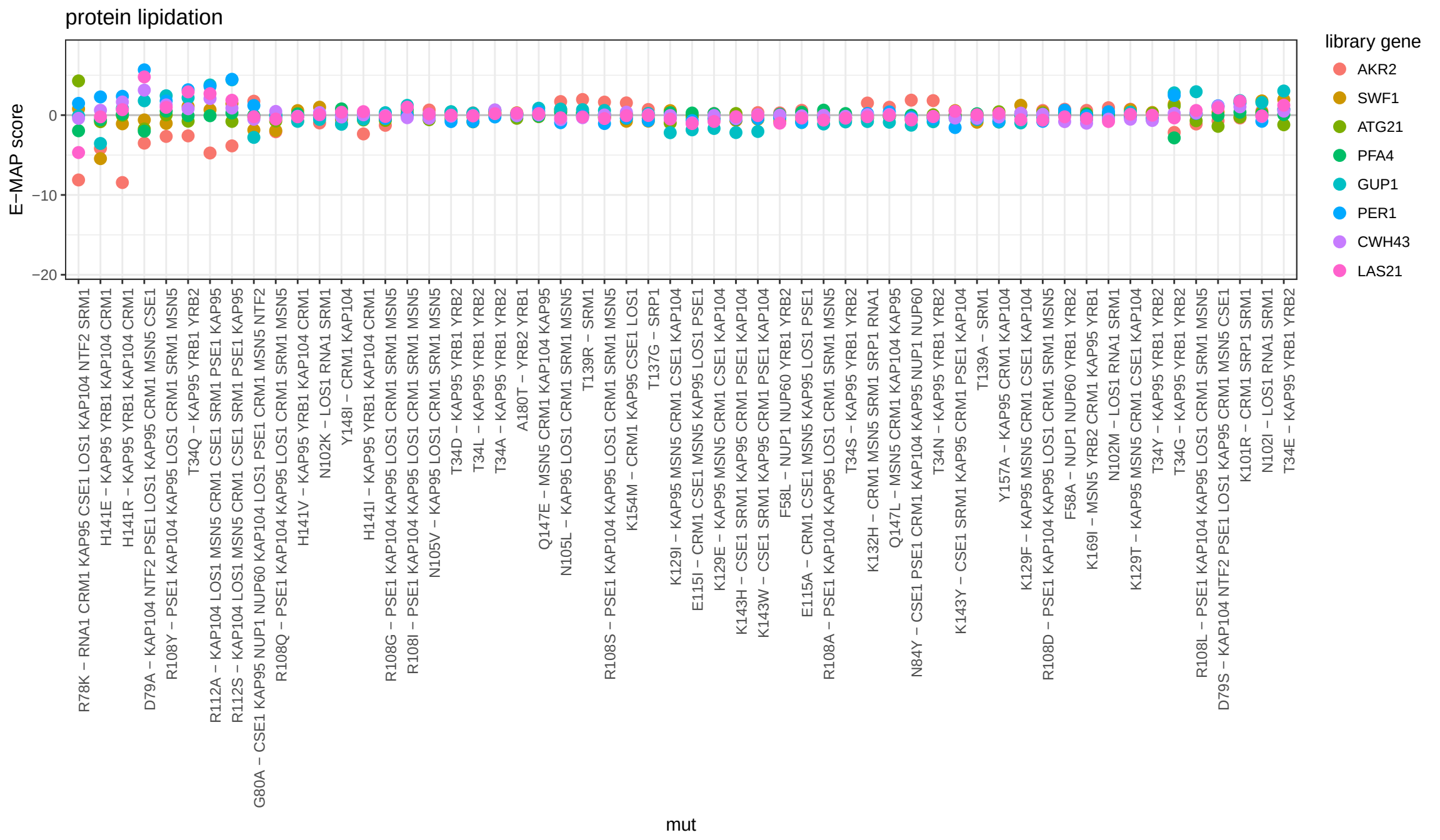

other DNA repair complexes
E–MAP score
0
−10
−20
mut
library gene
RAD55
RAD57
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
A180T – YRB2 YRB1
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34A – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34Y – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34E – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y157A – KAP95 CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T34D – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102M – LOS1 RNA1 SRM1
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104

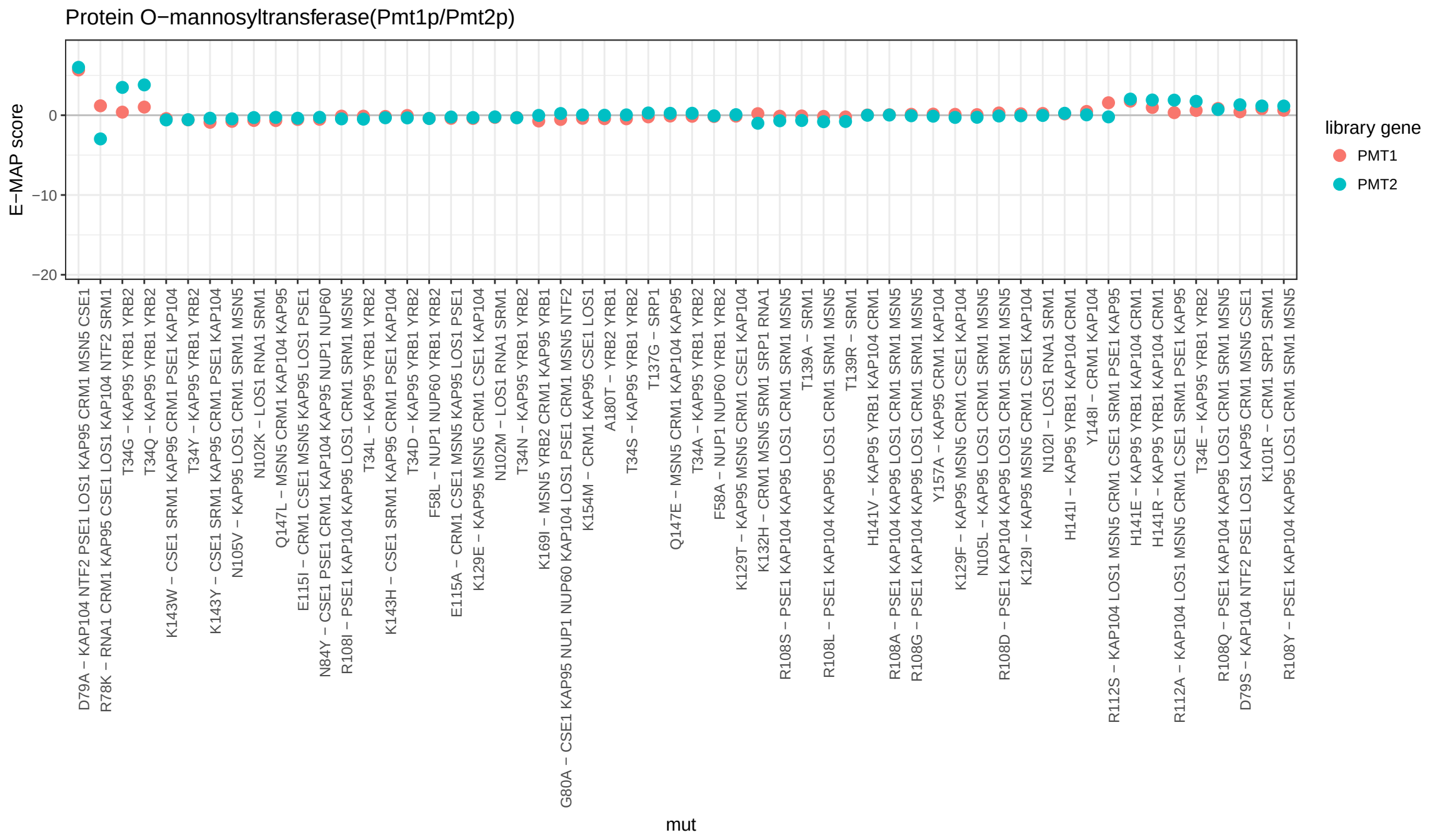

polarisome complex
E−MAP score
0
−10
−20
library gene
SPA2
BUD6
PEA2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102K – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K154M – CRM1 KAP95 CSE1 LOS1
Y157A – KAP95 CRM1 KAP104
T34A – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
A180T – YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34L – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
Q147L – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
T34N – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
mut

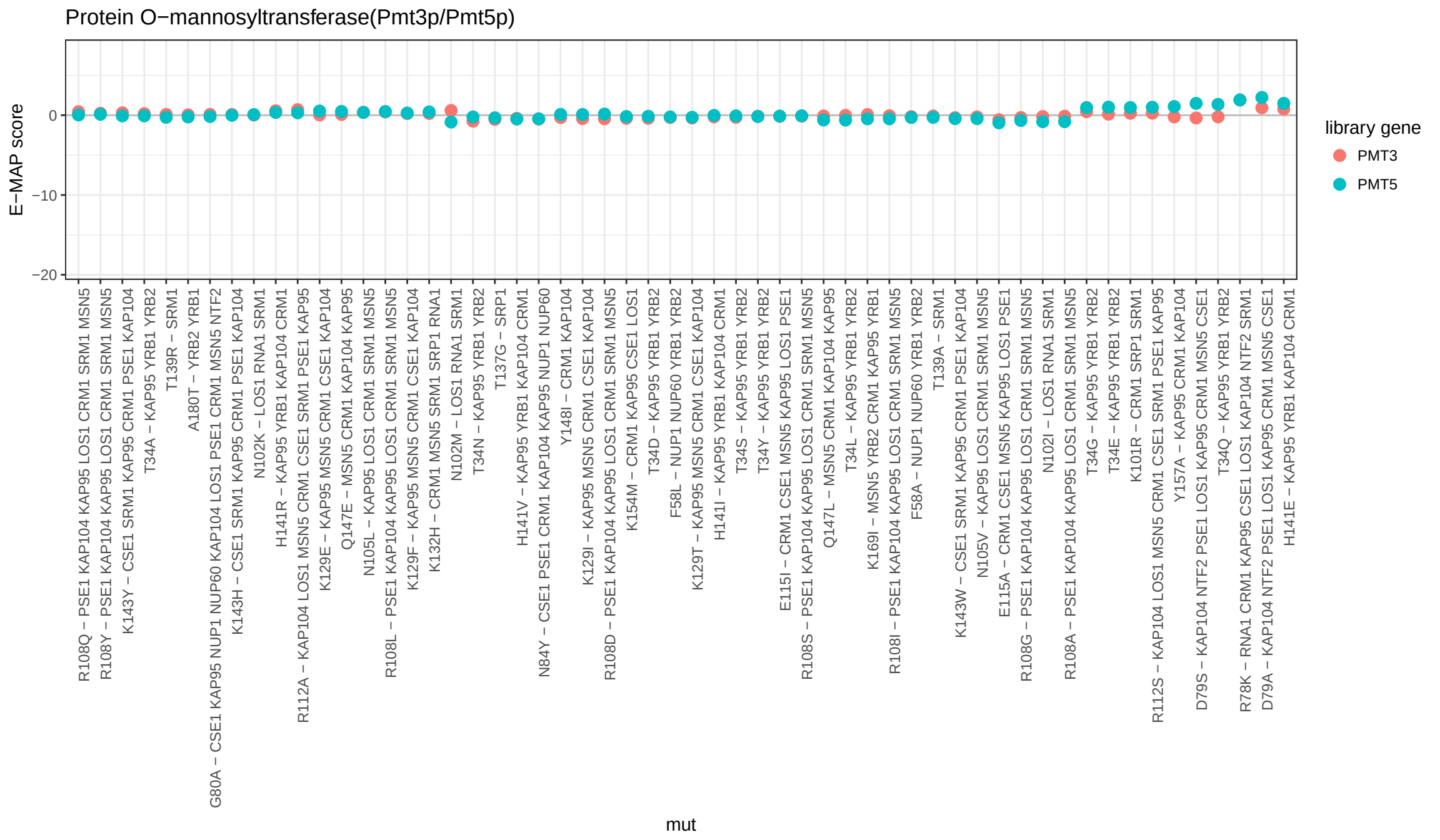

Polzeta−Rev1p complex
E−MAP score
0
−10
−20
library gene
REV1
REV3
REV7
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
Y157A – KAP95 CRM1 KAP104
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T139R – SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
T139A – SRM1
T34D – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58L – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
T34E – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141I – KAP95 YRB1 KAP104 CRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
T137G – SRP1
mut

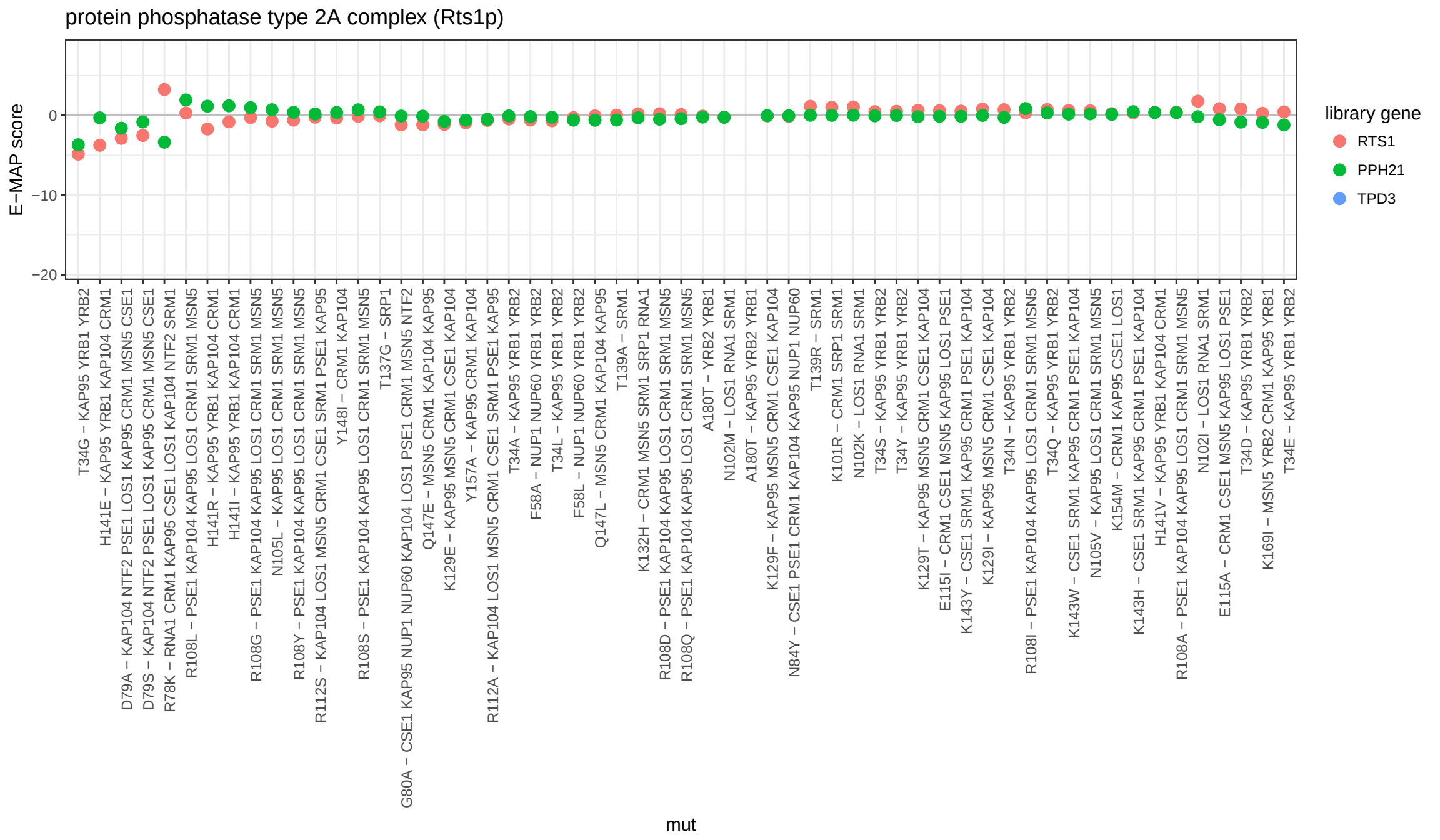

prefoldin complex
E−MAP score
0
−10
−20
mut
library gene
GIM3
PFD1
YKE2
GIM5
GIM4
PAC10
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34A – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
T34N – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141R – KAP95 YRB1 KAP104 CRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
T139R – SRM1
T139A – SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

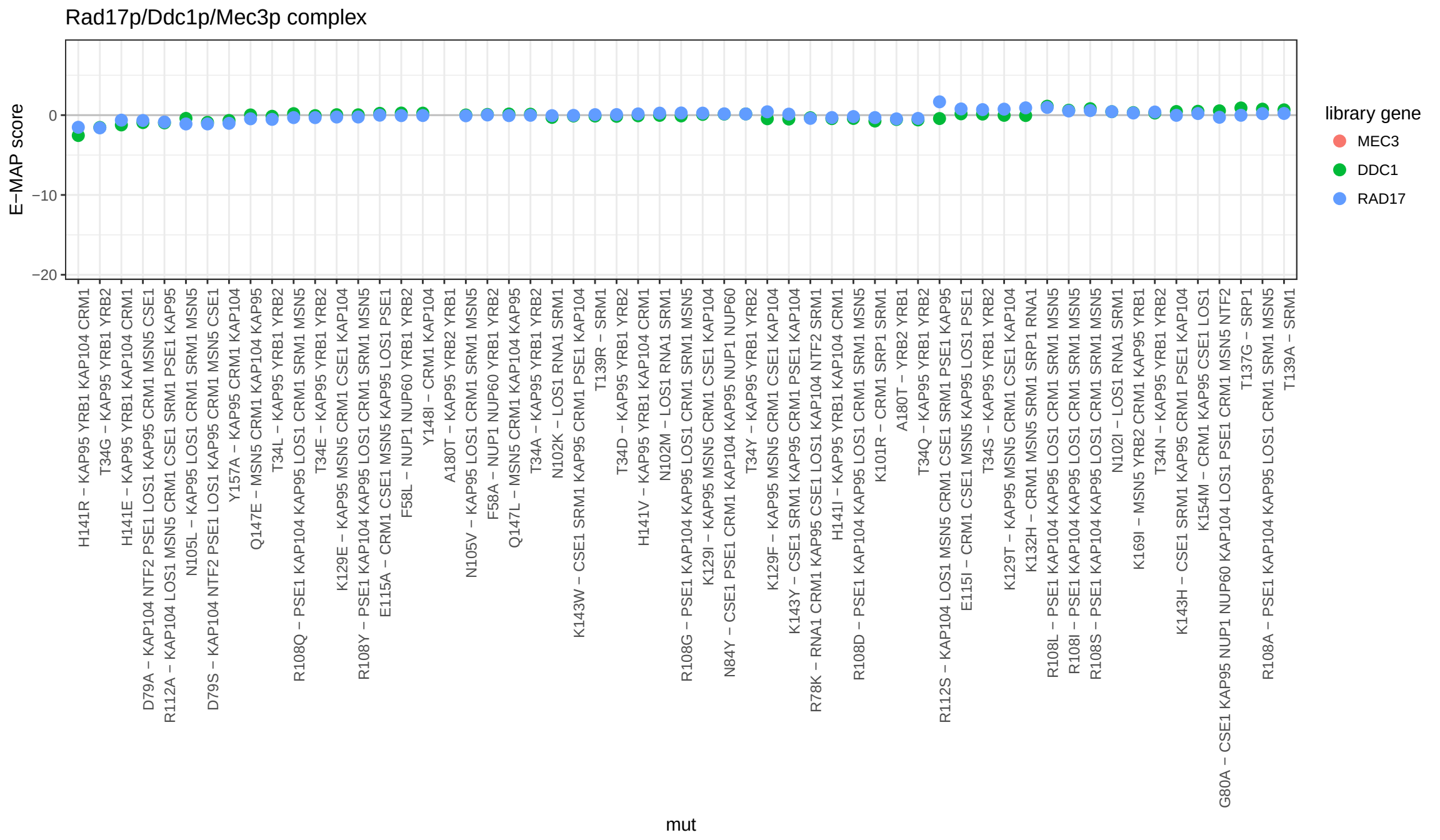

protein kinase CK2 complex
E–MAP score
0
−10
−20
library gene
CKB1
CKB2
CKA1
CKA2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34N – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139R – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
mut

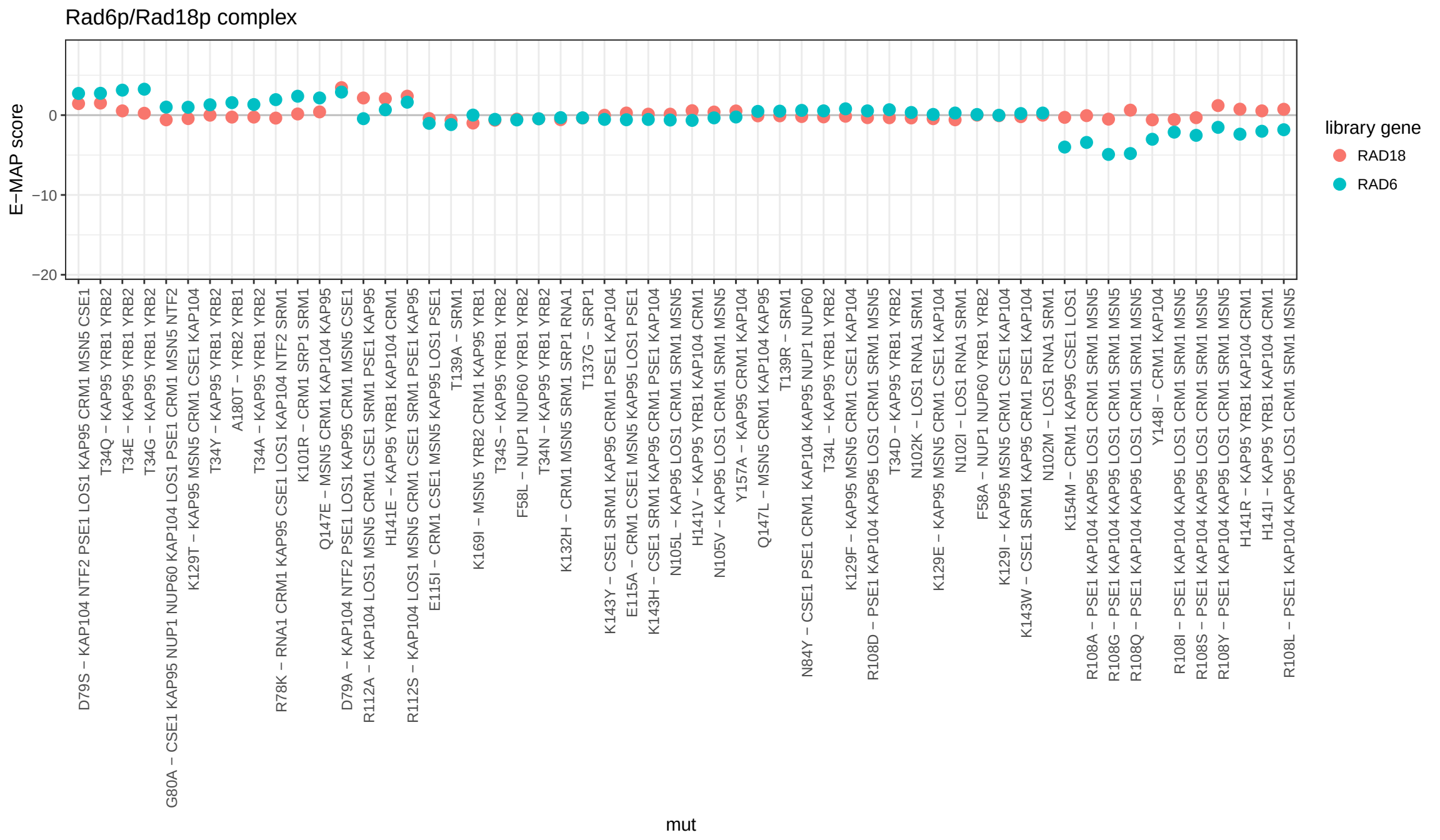

protein lipidation
E–MAP score
0
−10
−20
mut
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
Y148I – CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T137G – SRP1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
Y157A – KAP95 CRM1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
N102I – LOS1 RNA1 SRM1
T34E – KAP95 YRB1 YRB2
library gene
AKR2
SWF1
ATG21
PFA4
GUP1
PER1
CWH43
LAS21

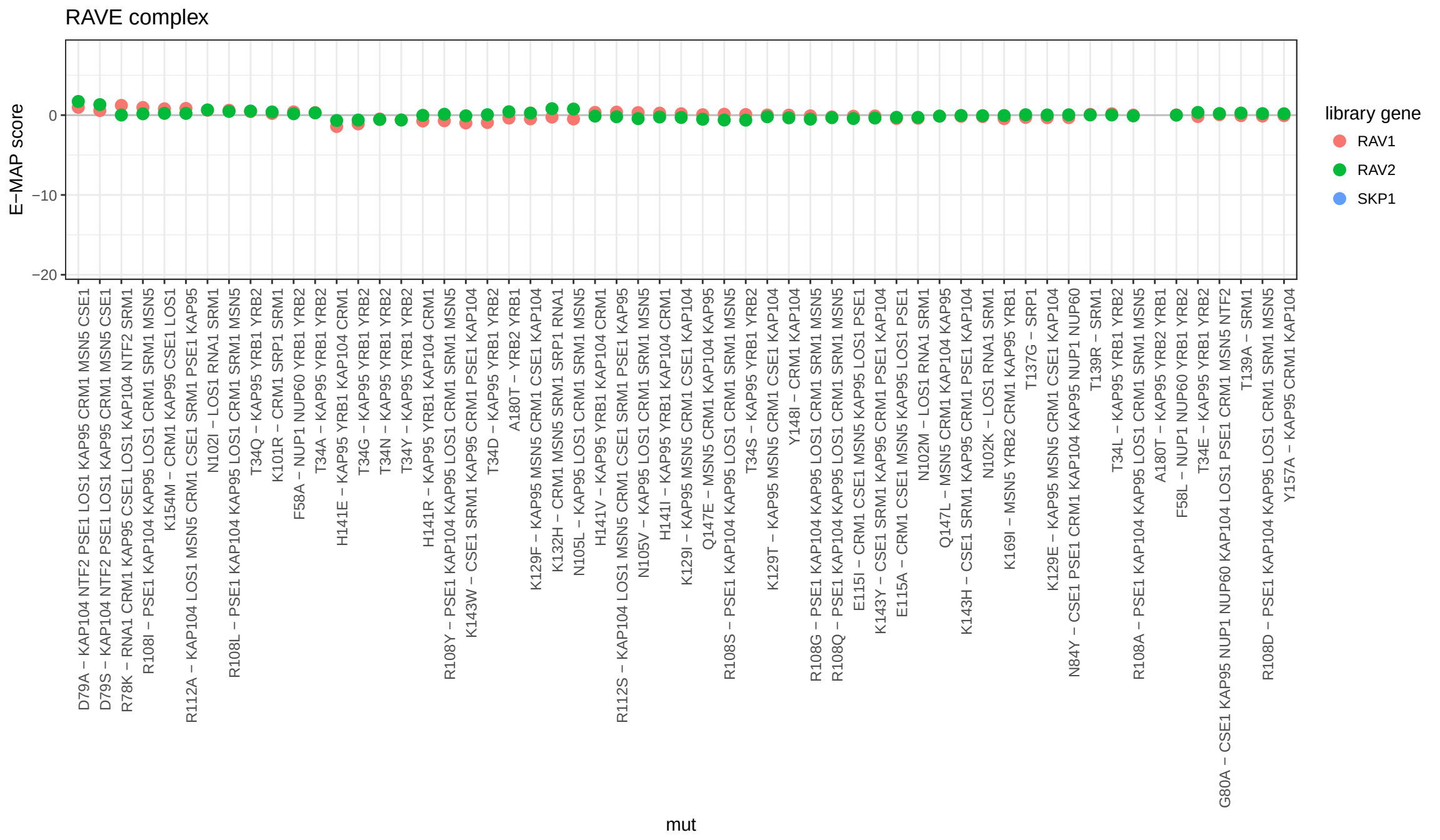

Protein O−mannosyltransferase(Pmt1p/Pmt2p)
E−MAP score
0
−10
−20
library gene
PMT1
PMT2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K154M – CRM1 KAP95 CSE1 LOS1
A180T – YRB2 YRB1
T34S – KAP95 YRB1 YRB2
T137G – SRP1
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

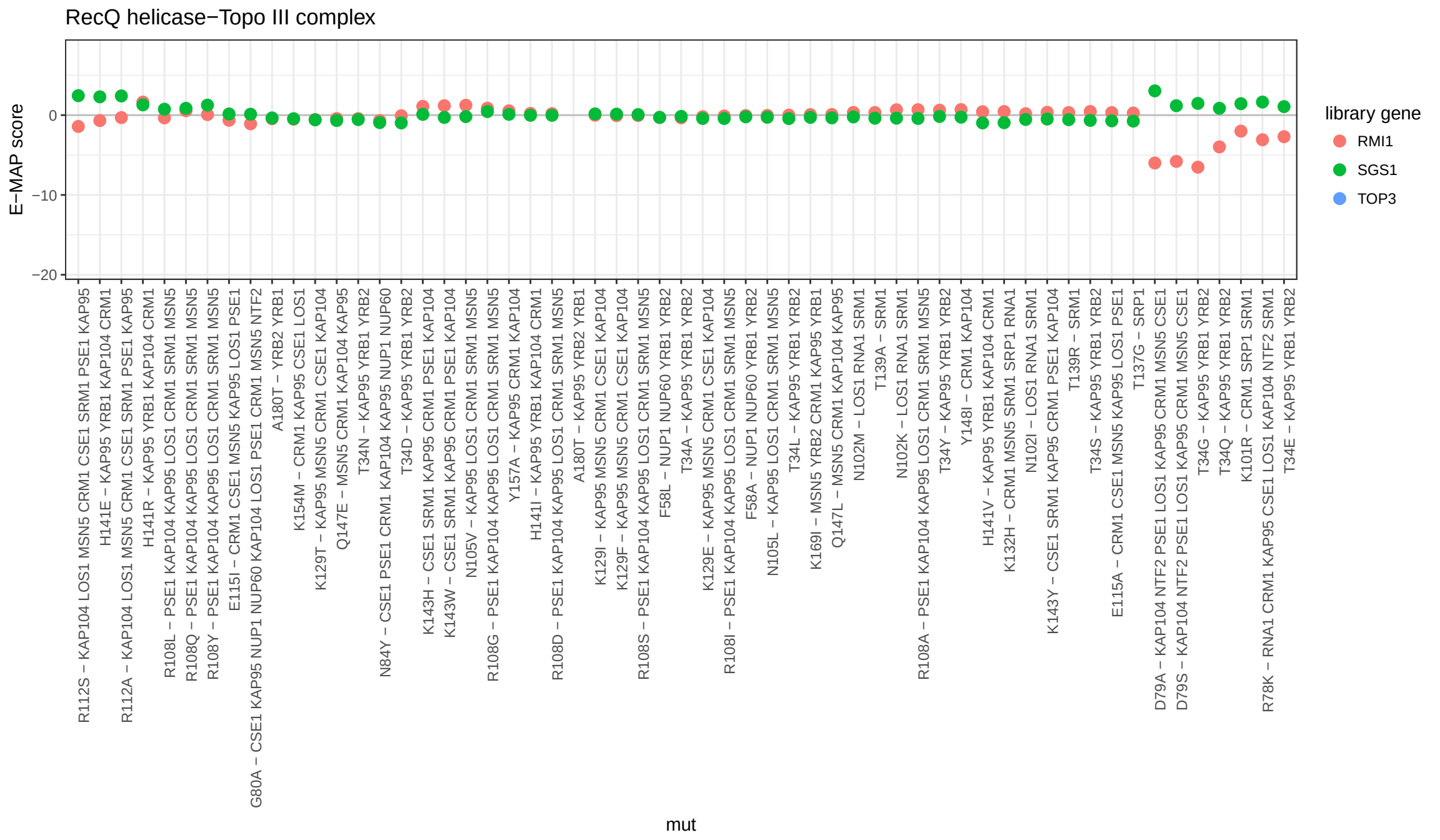

Protein O−mannosyltransferase(Pmt3p/Pmt5p)
E−MAP score
0
−10
−20
library gene
PMT3
PMT5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
T139R – SRM1
A180T – YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102M – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Y148I – CRM1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T34D – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
T34S – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
T139A – SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y157A – KAP95 CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
mut

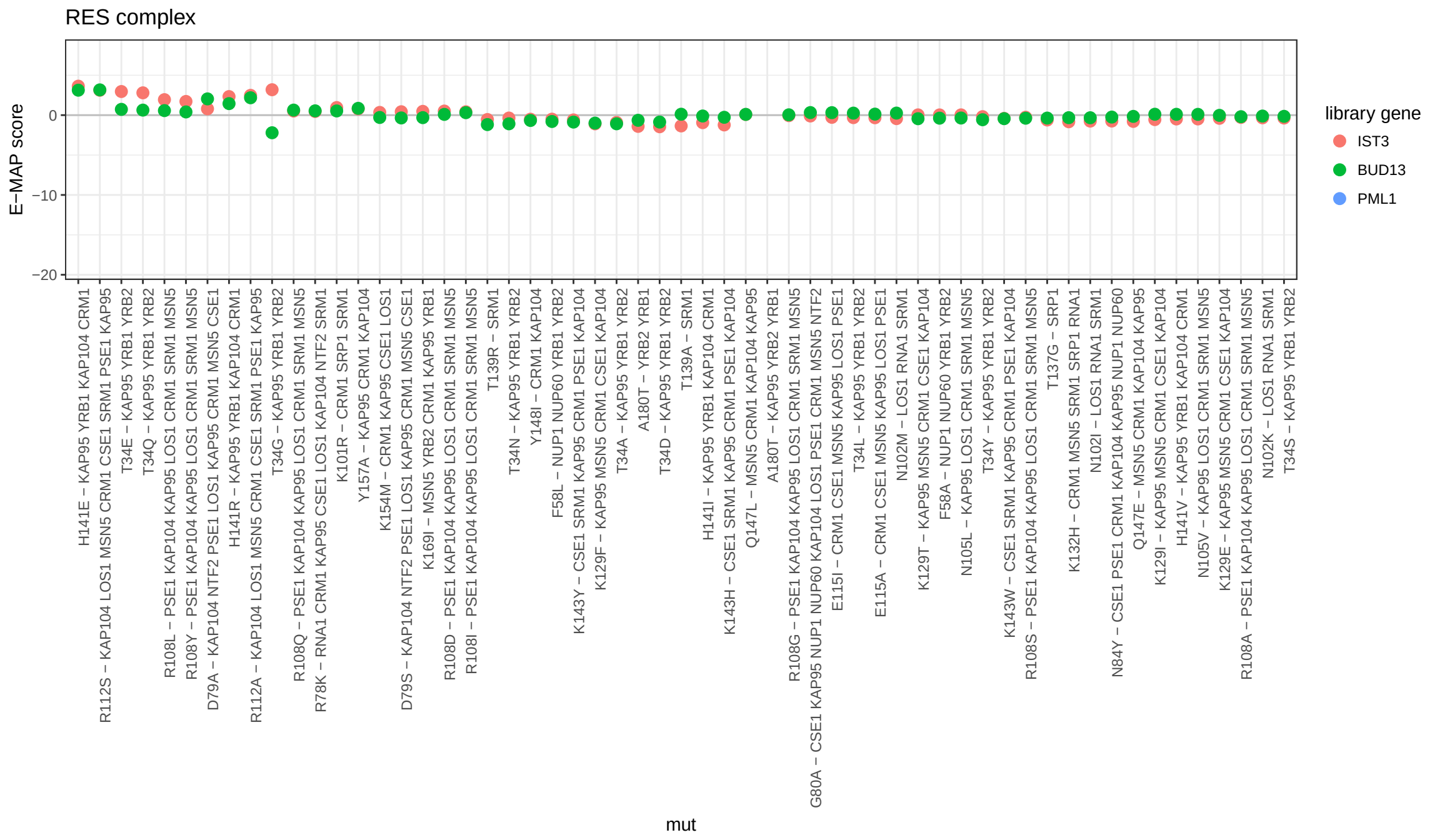

protein phosphatase type 2A complex (Rts1p)
E−MAP score
0
−10
−20
library gene
RTS1
PPH21
TPD3
T34G – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y148I – CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34A – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T139A – SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
N102M – LOS1 RNA1 SRM1
A180T – KAP95 YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
K101R – CRM1 SRP1 SRM1
N102K – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34D – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34E – KAP95 YRB1 YRB2
mut

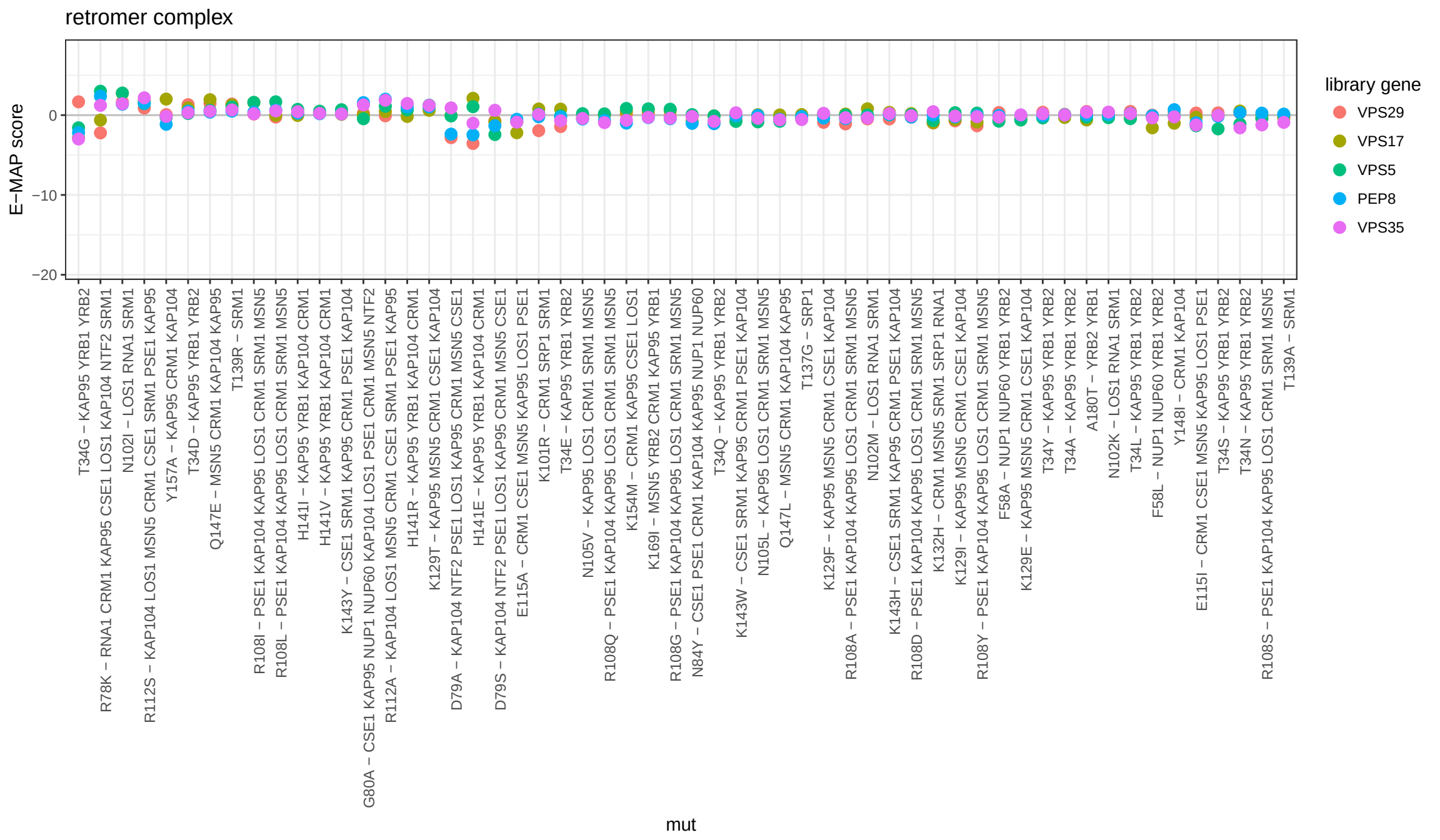

Rad17p/Ddc1p/Mec3p complex
E−MAP score
0
−10
−20
library gene
MEC3
DDC1
RAD17
H141R – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T34L – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
Y148I – CRM1 KAP104
A180T – KAP95 YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
T34D – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
N102M – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
A180T – YRB2 YRB1
T34Q – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34N – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T137G – SRP1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
mut

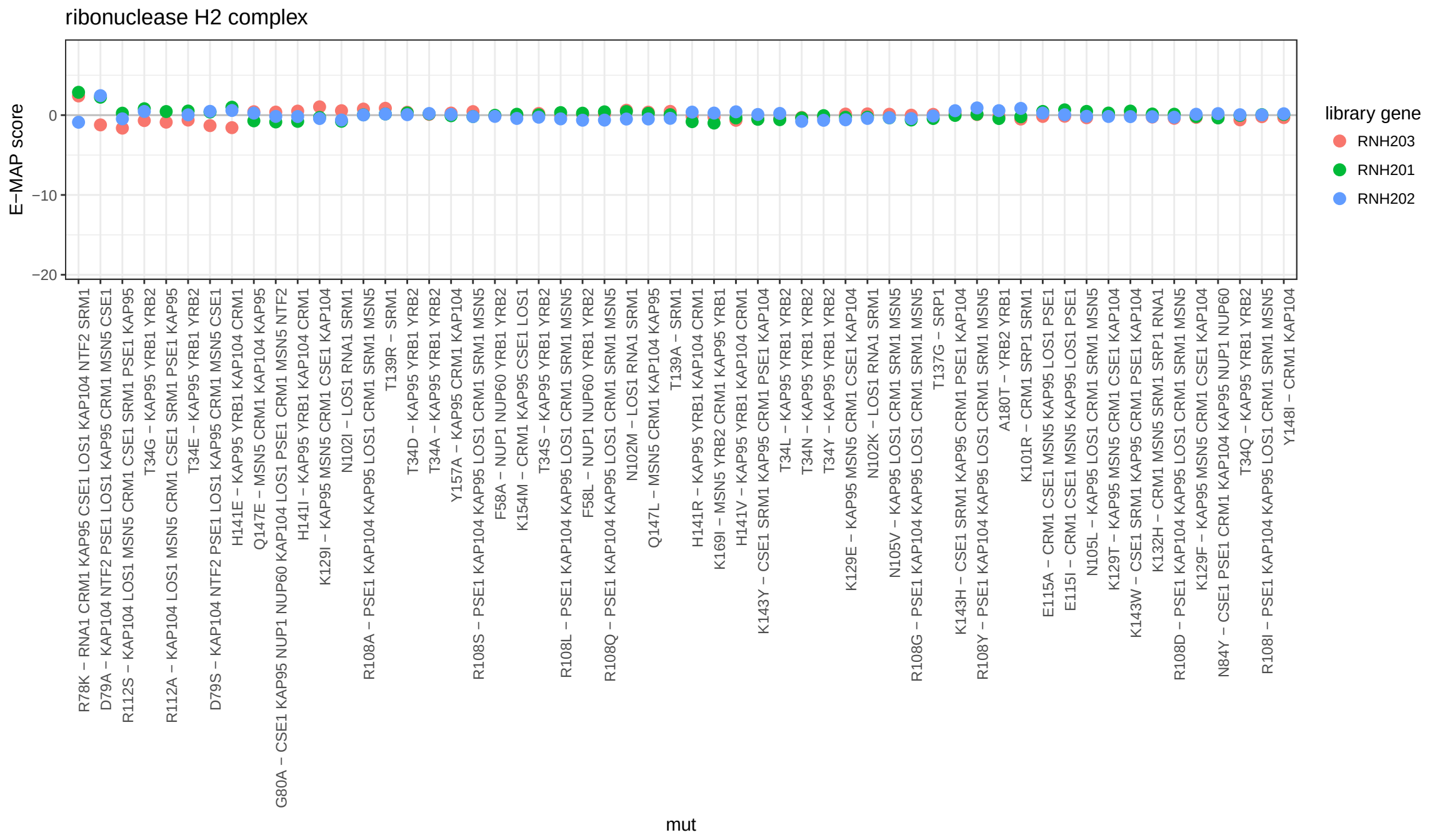

Rad6p/Rad18p complex
E−MAP score
0
−10
−20
mut
library gene
RAD18
RAD6
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T34A – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K101R – CRM1 SRP1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T137G – SRP1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34L – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

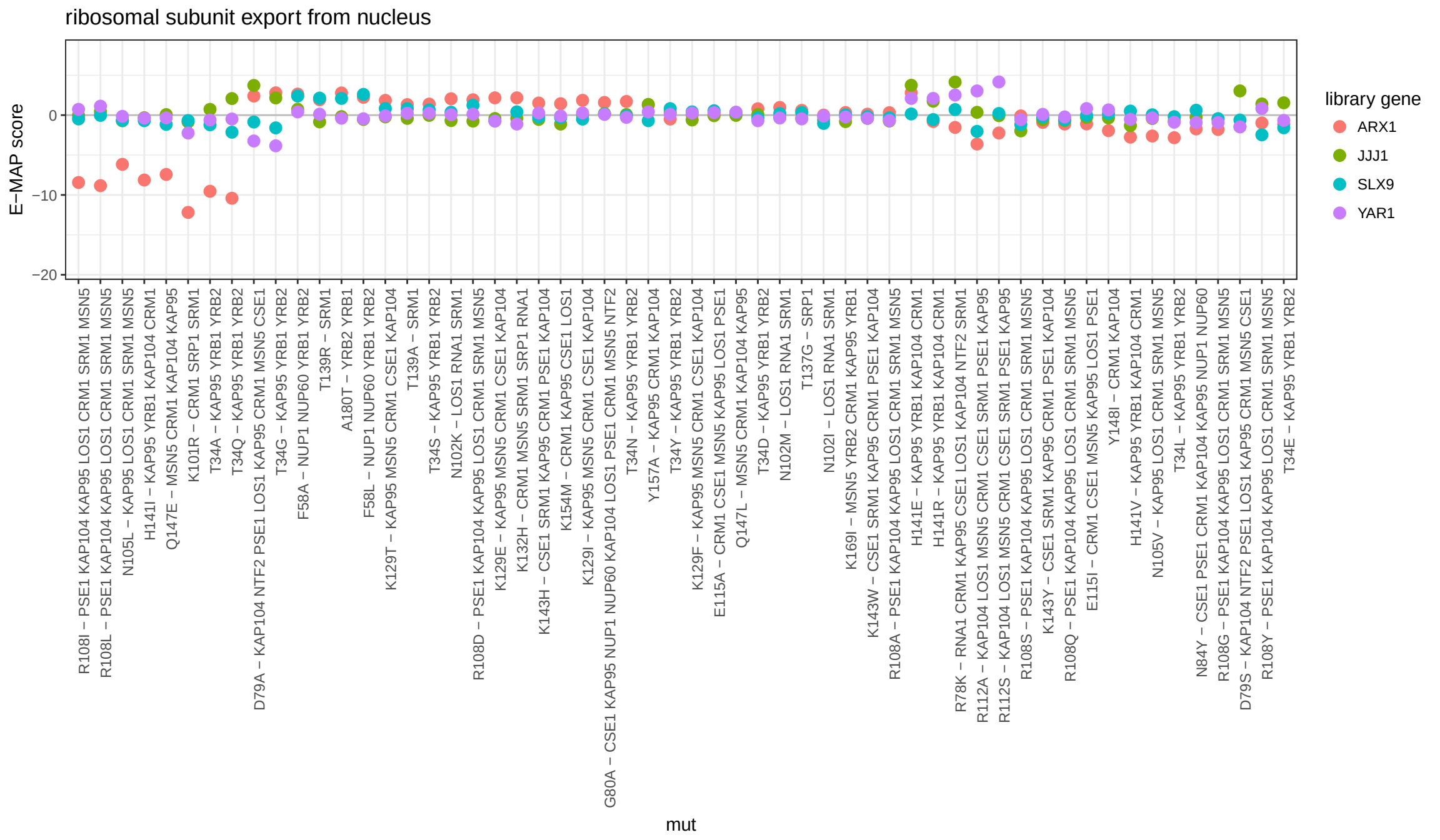

RAVE complex
E−MAP score
0
−10
−20
library gene
RAV1
RAV2
SKP1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102I – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Y148I – CRM1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T137G – SRP1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
T34L – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
F58L – NUP1 NUP60 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139A – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
mut

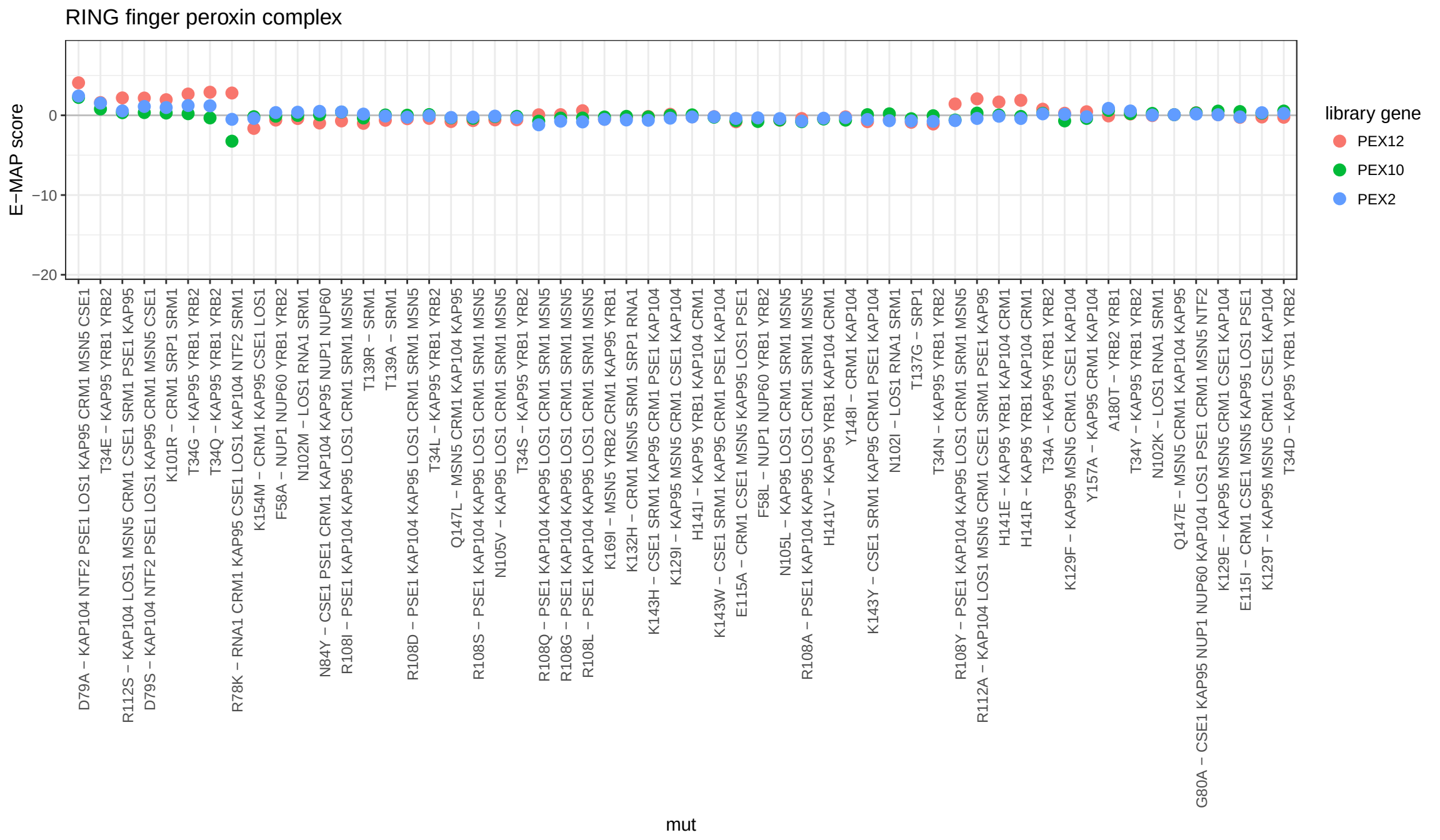

RecQ helicase−Topo III complex
E−MAP score
0
−10
−20
mut
library gene
RMI1
SGS1
TOP3
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
A180T – YRB2 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T34N – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34D – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
N102M – LOS1 RNA1 SRM1
T139A – SRM1
N102K – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139R – SRM1
T34S – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34E – KAP95 YRB1 YRB2

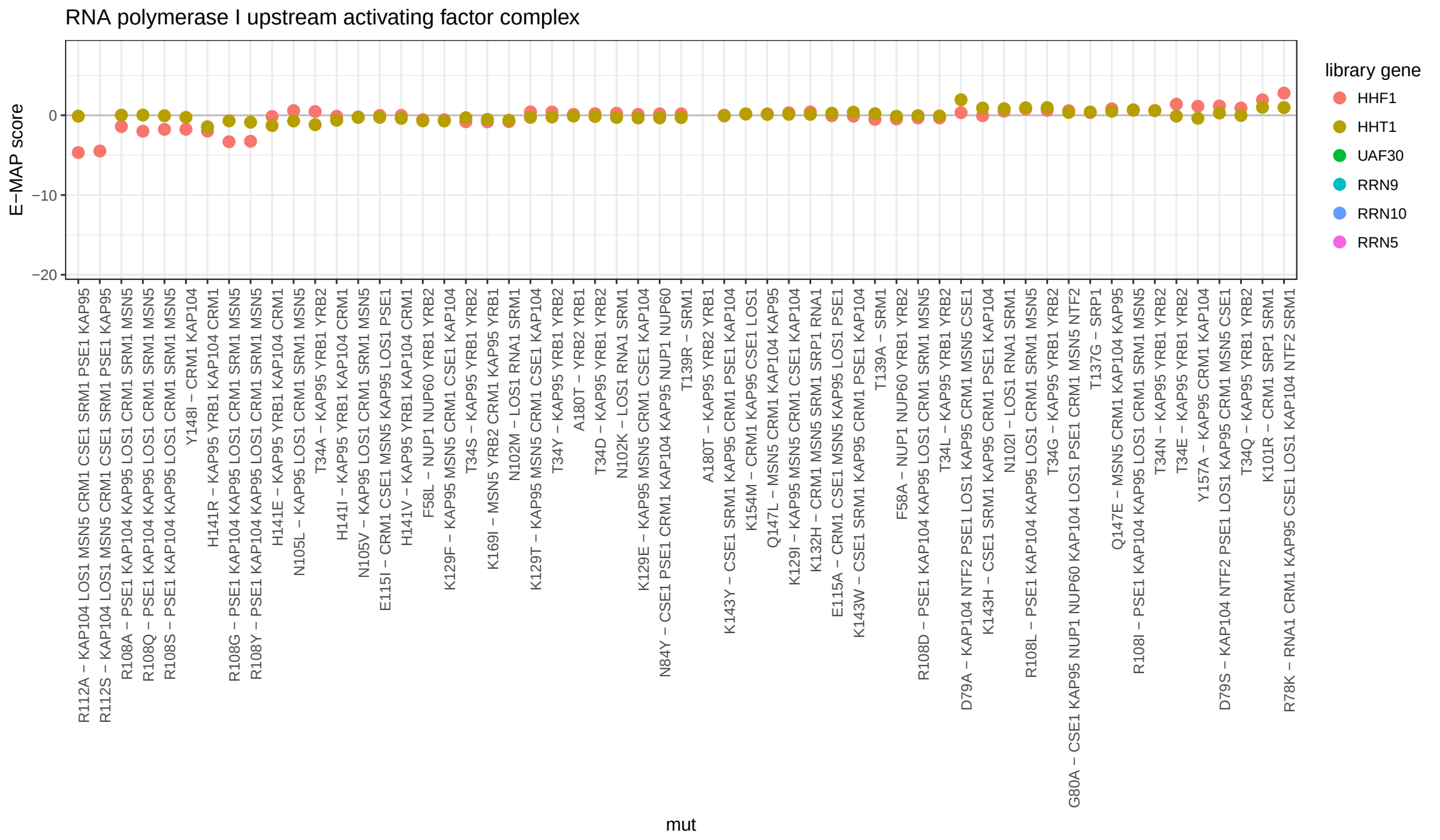

RES complex
E−MAP score
0
−10
−20
library gene
IST3
BUD13
PML1
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
T34N – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
T139A – SRM1
H141I – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – KAP95 YRB2 YRB1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147E – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
mut

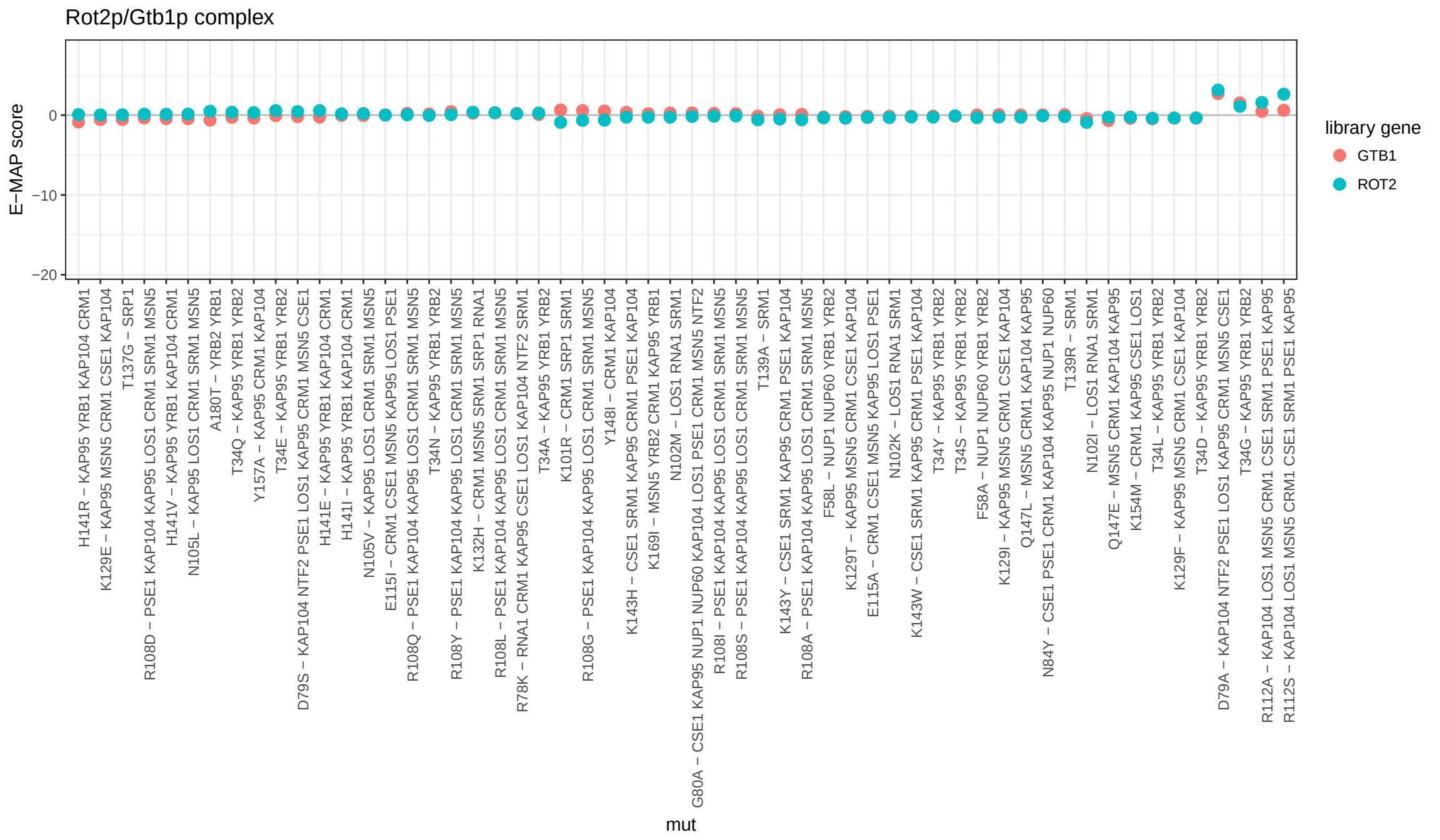

retromer complex
E−MAP score
0
−10
−20
mut
T34G – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N102I – LOS1 RNA1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Y157A – KAP95 CRM1 KAP104
T34D – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Q – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
Y148I – CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
library gene
VPS29
VPS17
VPS5
PEP8
VPS35

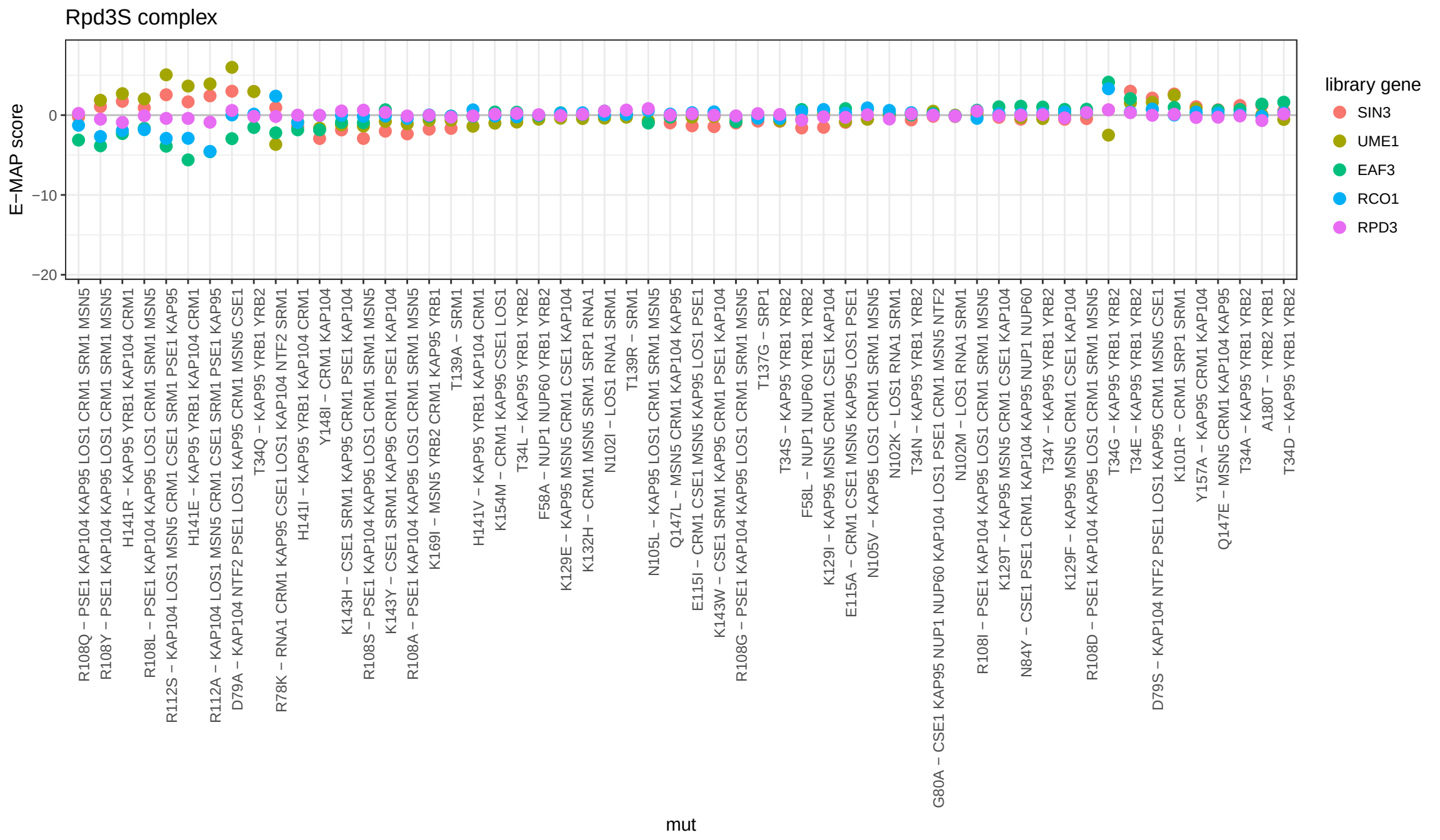

ribonuclease H2 complex
E−MAP score
0
−10
−20
mut
library gene
RNH203
RNH201
RNH202
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141I – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
T34D – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T34S – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
T139A – SRM1
H141R – KAP95 YRB1 KAP104 CRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K101R – CRM1 SRP1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Q – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104

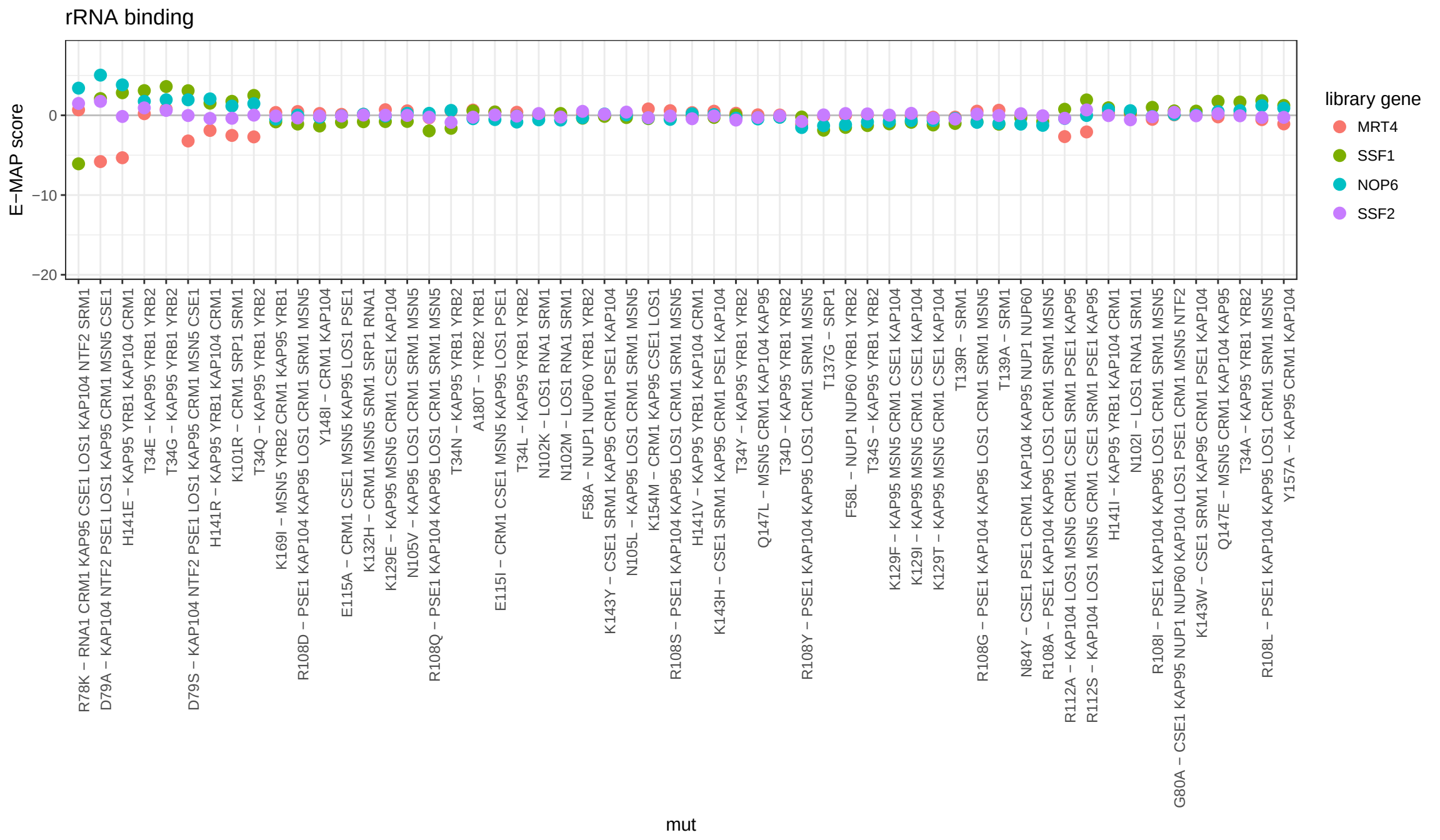

ribosomal subunit export from nucleus
E−MAP score
0
−10
−20
mut
library gene
ARX1
JJJ1
SLX9
YAR1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K101R – CRM1 SRP1 SRM1
T34A – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
T139R – SRM1
A180T – YRB2 YRB1
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
T34S – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34N – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T137G – SRP1
N102I – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2


RING finger peroxin complex
E−MAP score
0
−10
−20
library gene
PEX12
PEX10
PEX2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
T139A – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
T137G – SRP1
T34N – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
A180T – YRB2 YRB1
T34Y – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
mut


RNA polymerase I upstream activating factor complex
E−MAP score
0
−10
−20
library gene
HHF1
HHT1
UAF30
RRN9
RRN10
RRN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141V – KAP95 YRB1 KAP104 CRM1
F58L – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
A180T – KAP95 YRB2 YRB1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
Q147L – MSN5 CRM1 KAP104 KAP95
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T137G – SRP1
Q147E – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut


Rot2p/Gtb1p complex
E−MAP score
0
−10
−20
mut
H141R – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34A – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102M – LOS1 RNA1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
N102I – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K154M – CRM1 KAP95 CSE1 LOS1
T34L – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
library gene
GTB1
ROT2


Rpd3S complex
E−MAP score
0
−10
−20
mut
library gene
SIN3
UME1
EAF3
RCO1
RPD3
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
Y148I – CRM1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139A – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N102I – LOS1 RNA1 SRM1
T139R – SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N102M – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2


rRNA binding
E−MAP score
0
−10
−20
library gene
MRT4
SSF1
NOP6
SSF2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
N102M – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
T34D – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
mut

RSC complex

E–MAP score

0

−10

−20

F58L – NUP1 NUP60 YRB1 YRB2

R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

H141R – KAP95 YRB1 KAP104 CRM1

K129E – KAP95 MSN5 CRM1 CSE1 KAP104

K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104

T139A – SRM1

Q147L – MSN5 CRM1 KAP104 KAP95

R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

Y148I – CRM1 KAP104

T137G – SRP1

Q147E – MSN5 CRM1 KAP104 KAP95

R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

T34A – KAP95 YRB1 YRB2

Y157A – KAP95 CRM1 KAP104

K129T – KAP95 MSN5 CRM1 CSE1 KAP104

N102K – LOS1 RNA1 SRM1

K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104

K154M – CRM1 KAP95 CSE1 LOS1

H141I – KAP95 YRB1 KAP104 CRM1

T34N – KAP95 YRB1 YRB2

R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2

N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60

F58A – NUP1 NUP60 YRB1 YRB2

K129F – KAP95 MSN5 CRM1 CSE1 KAP104

K129I – KAP95 MSN5 CRM1 CSE1 KAP104

T34Y – KAP95 YRB1 YRB2

T34L – KAP95 YRB1 YRB2

K132H – CRM1 MSN5 SRM1 SRP1 RNA1

T139R – SRM1

T34E – KAP95 YRB1 YRB2

H141E – KAP95 YRB1 KAP104 CRM1

R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1

E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1

H141V – KAP95 YRB1 KAP104 CRM1

K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104

N102M – LOS1 RNA1 SRM1

K101R – CRM1 SRP1 SRM1

N102I – LOS1 RNA1 SRM1

T34Q – KAP95 YRB1 YRB2

A180T – YRB2 YRB1

D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1

T34D – KAP95 YRB1 YRB2

R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

A180T – KAP95 YRB2 YRB1

T34S – KAP95 YRB1 YRB2

K169I – MSN5 YRB2 CRM1 KAP95 YRB1

N105V – KAP95 LOS1 CRM1 SRM1 MSN5

R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1

N105L – KAP95 LOS1 CRM1 SRM1 MSN5

R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

T34G – KAP95 YRB1 YRB2

mut

SFH1

RSC9

RSC8

RSC6

RSC58

RSC4

RSC30

RSC3

RSC2

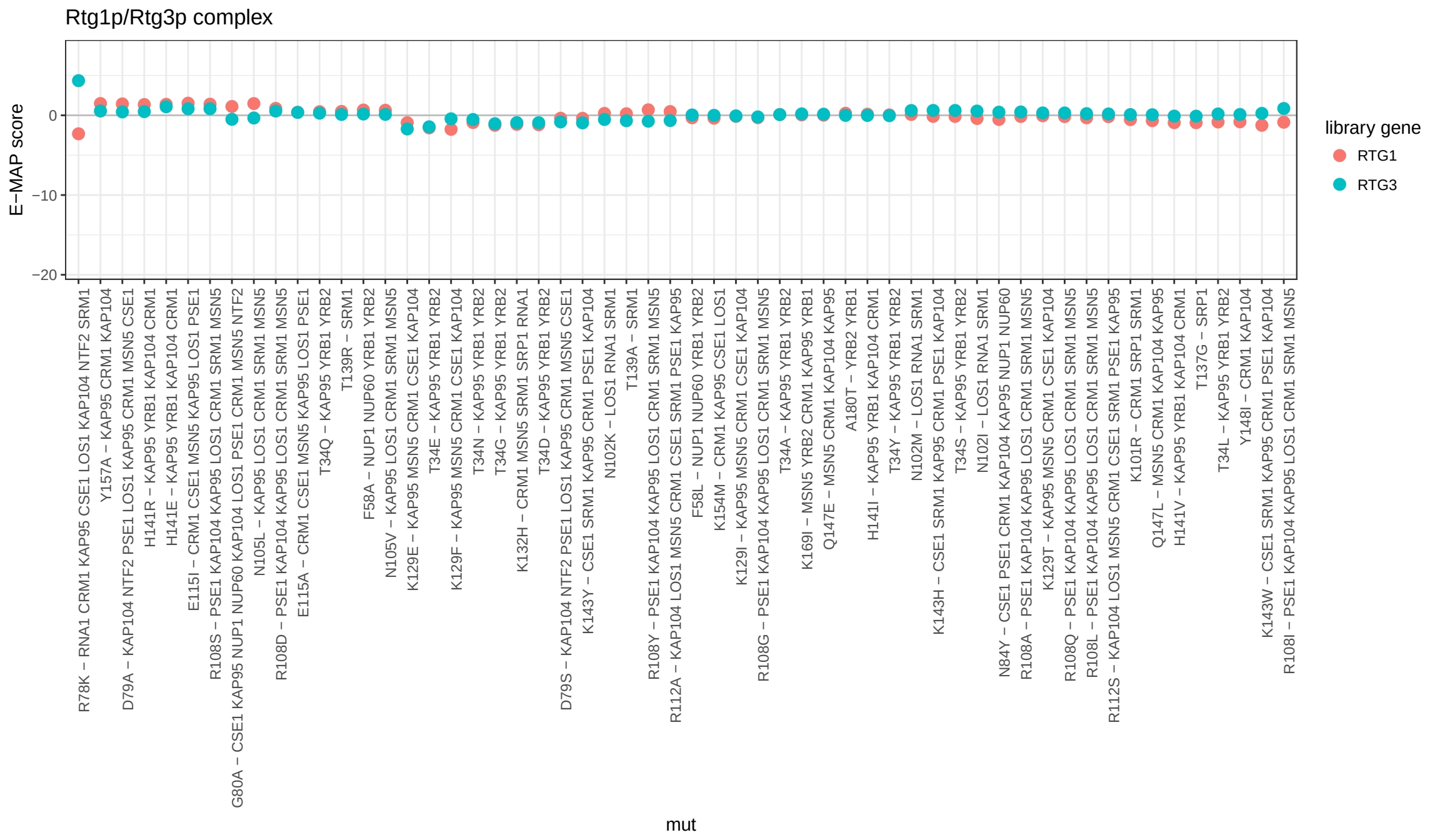
NPL6

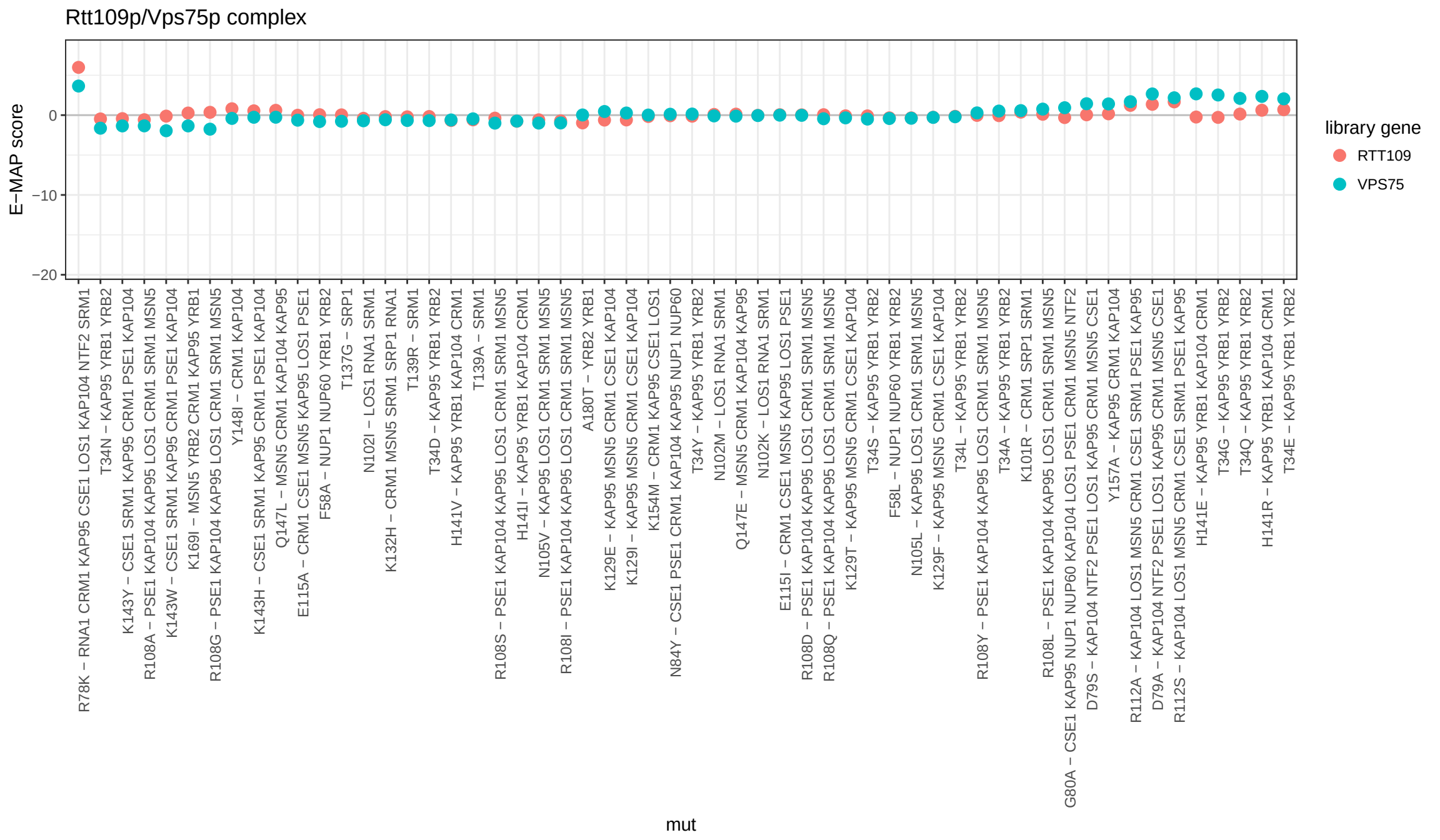
LDB7

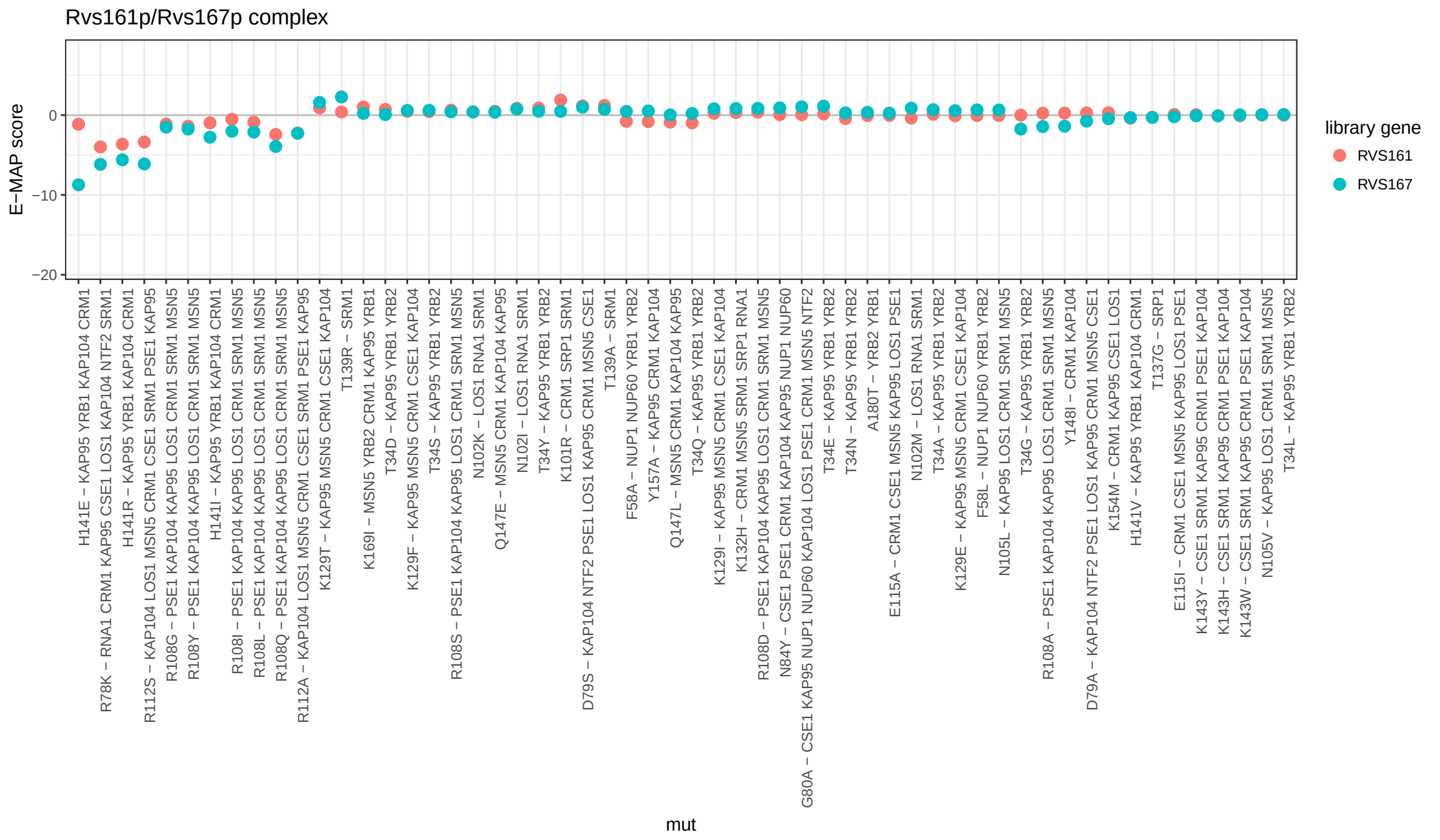
HTL1

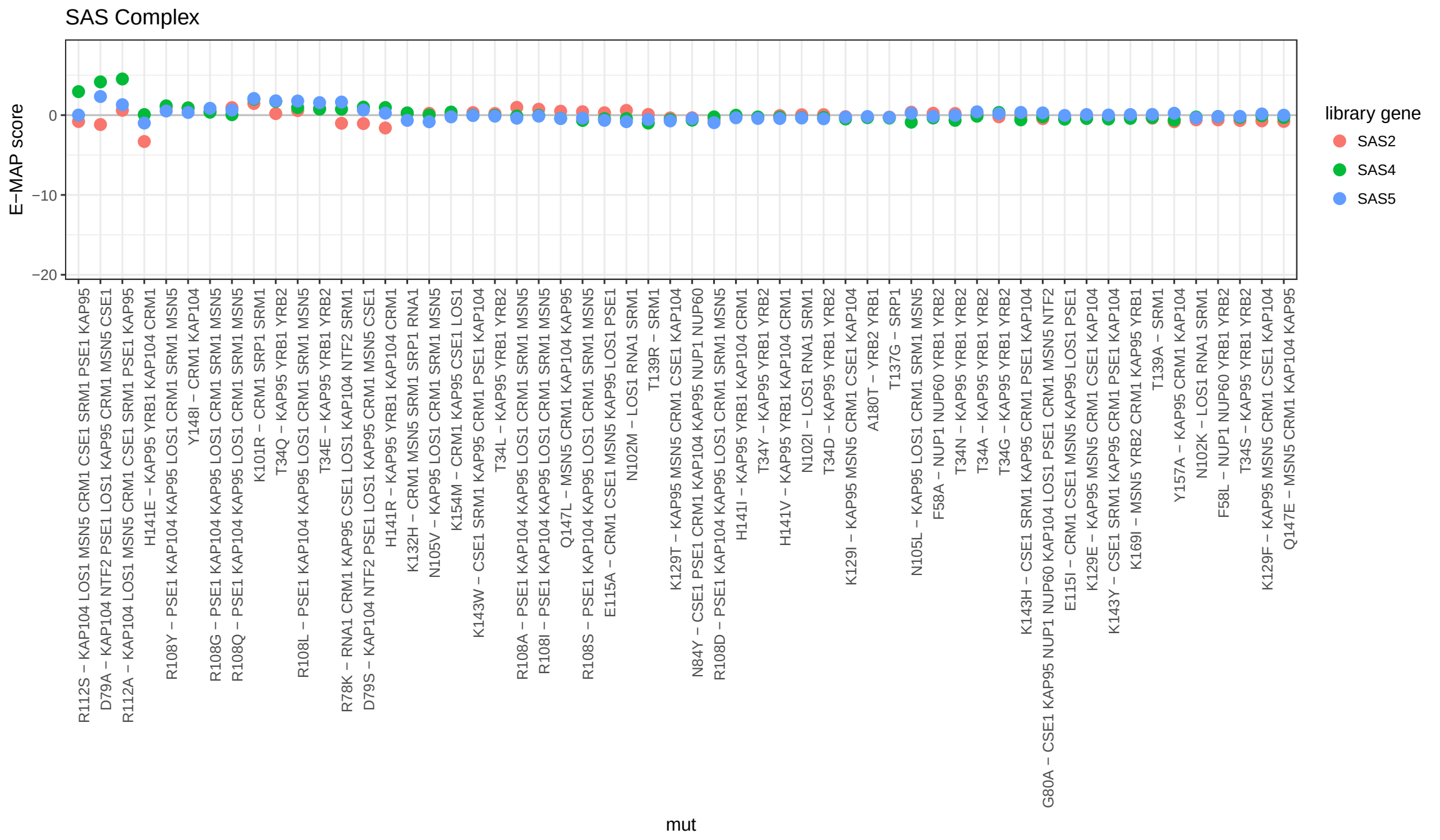
ARP7

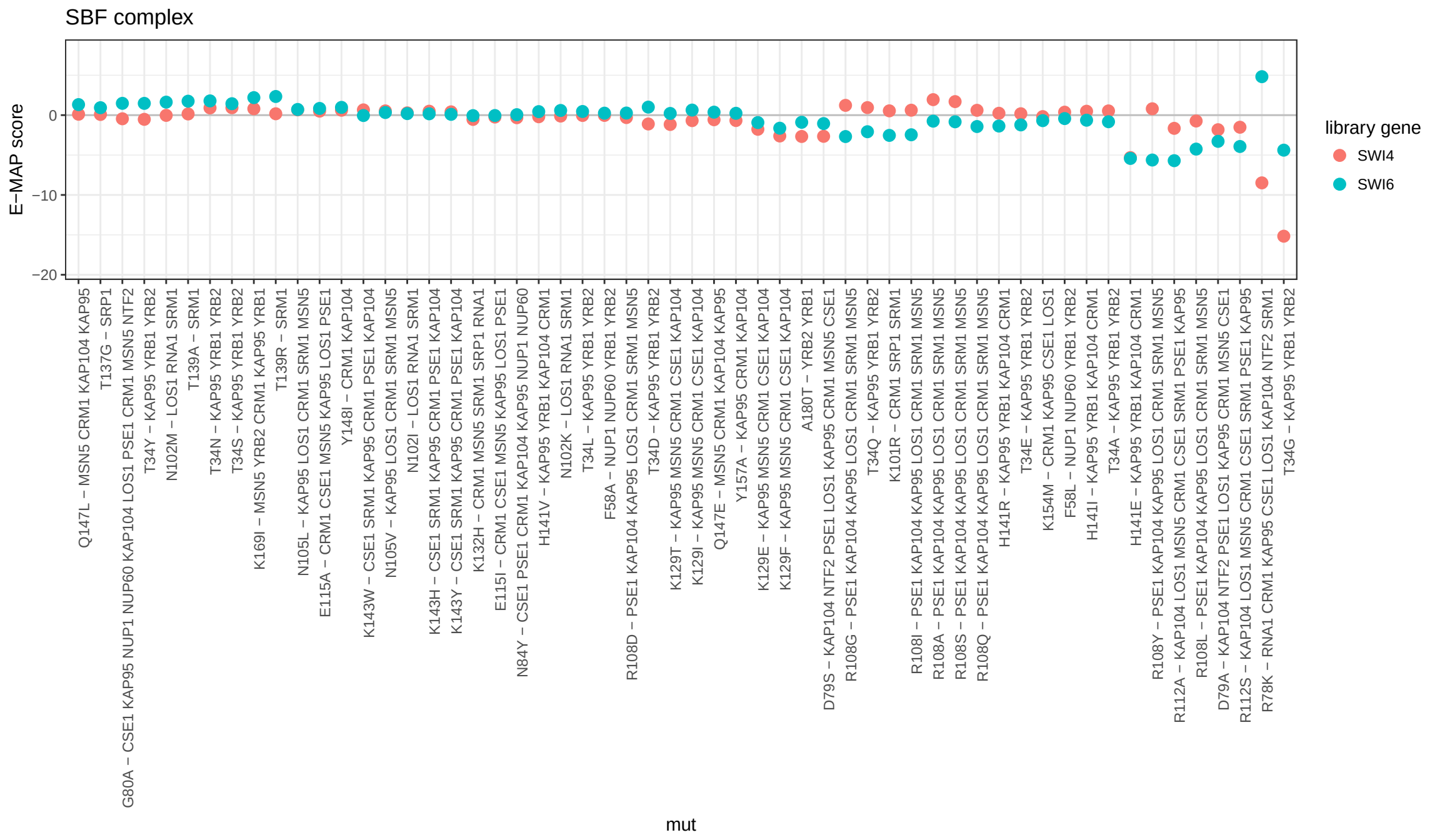
ARP9

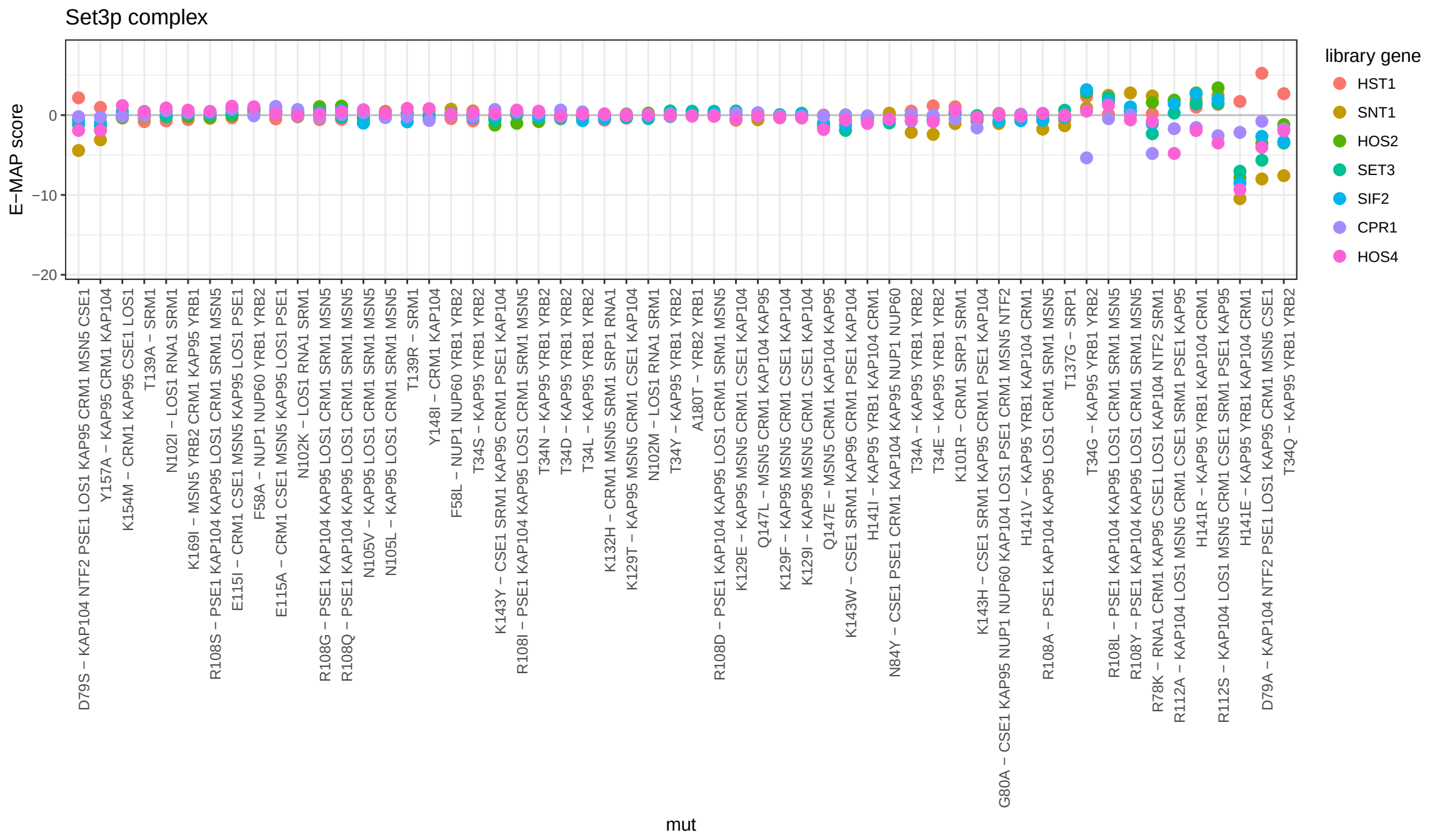

Rtg1p/Rtg3p complex
E−MAP score
0
−10
−20
library gene
RTG1
RTG3
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
Y157A – KAP95 CRM1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
H141E – KAP95 YRB1 KAP104 CRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Q – KAP95 YRB1 YRB2
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34E – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34D – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
T139A – SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
H141I – KAP95 YRB1 KAP104 CRM1
T34Y – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34S – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
T137G – SRP1
T34L – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

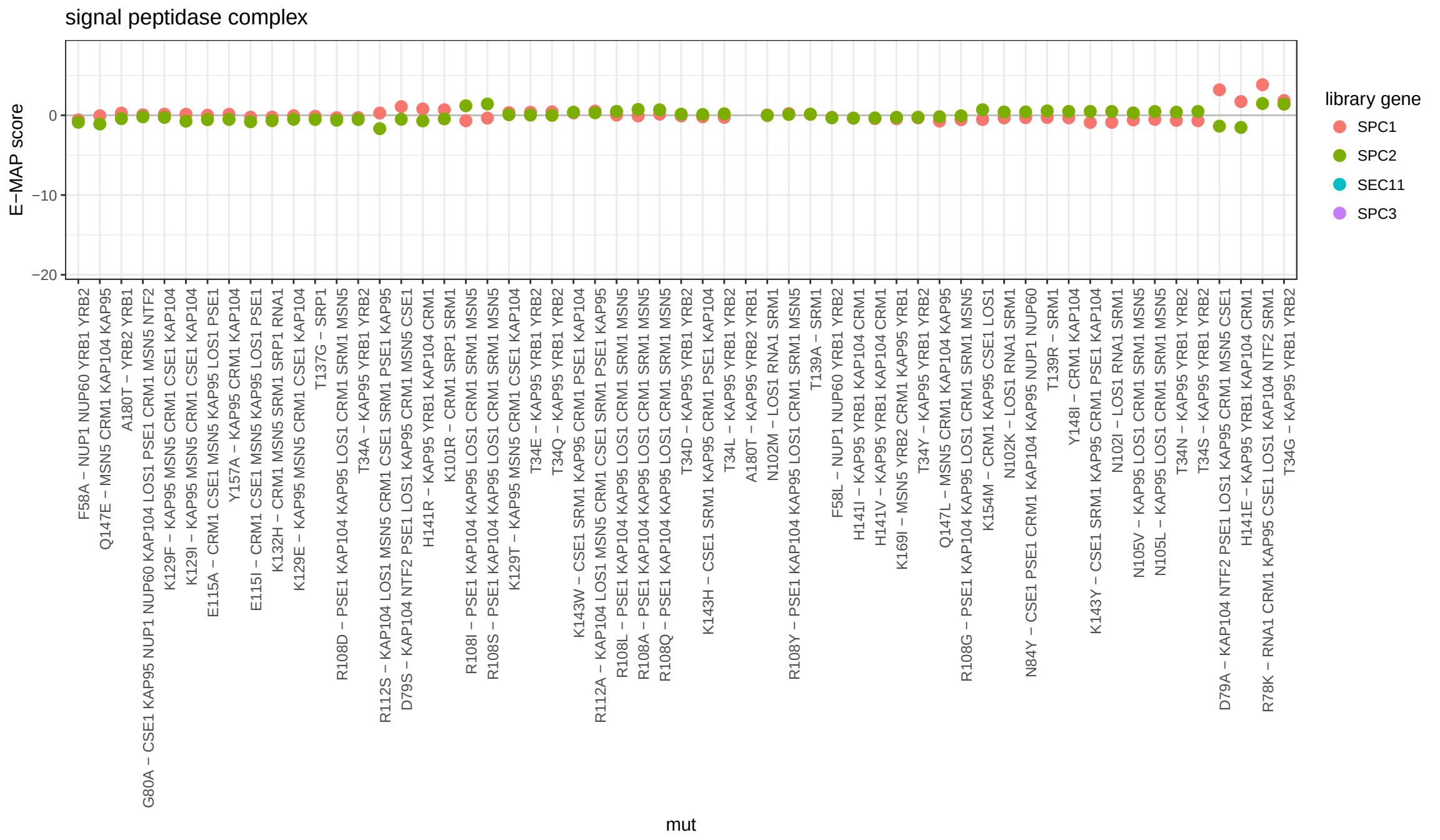

Rtt109p/Vps75p complex
E−MAP score
0
−10
−20
library gene
RTT109
VPS75
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34N – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
N102I – LOS1 RNA1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139R – SRM1
T34D – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
N102K – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
mut

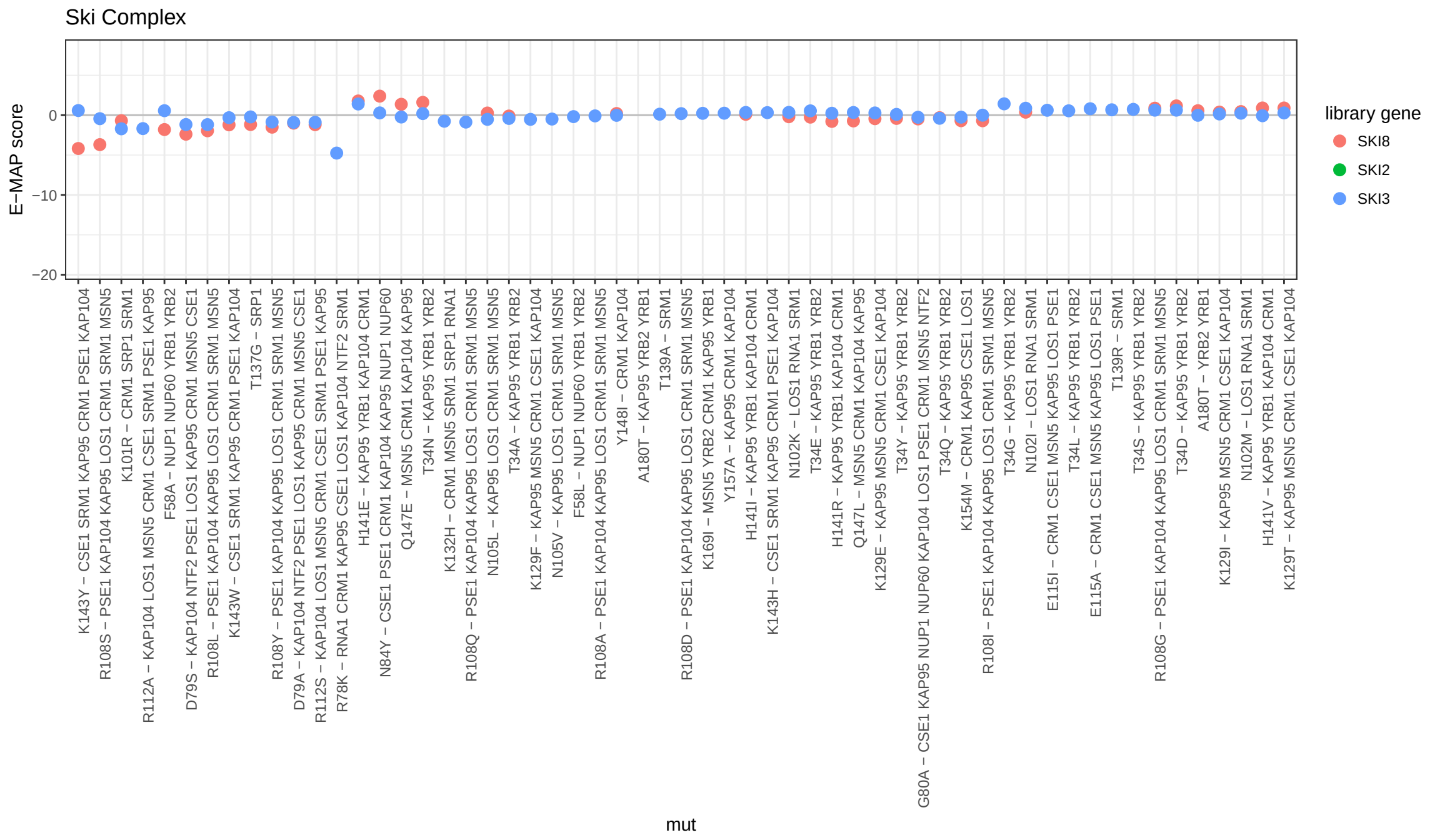

Rvs161p/Rvs167p complex
E−MAP score
0
−10
−20
library gene
RVS161
RVS167
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34D – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T139A – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34Q – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34E – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102M – LOS1 RNA1 SRM1
T34A – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K154M – CRM1 KAP95 CSE1 LOS1
H141V – KAP95 YRB1 KAP104 CRM1
T137G – SRP1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
mut


SAS Complex
E–MAP score
0
−10
−20
library gene
SAS2
SAS4
SAS5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102M – LOS1 RNA1 SRM1
T139R – SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
T34Y – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
N102I – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
T137G – SRP1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139A – SRM1
Y157A – KAP95 CRM1 KAP104
N102K – LOS1 RNA1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
mut

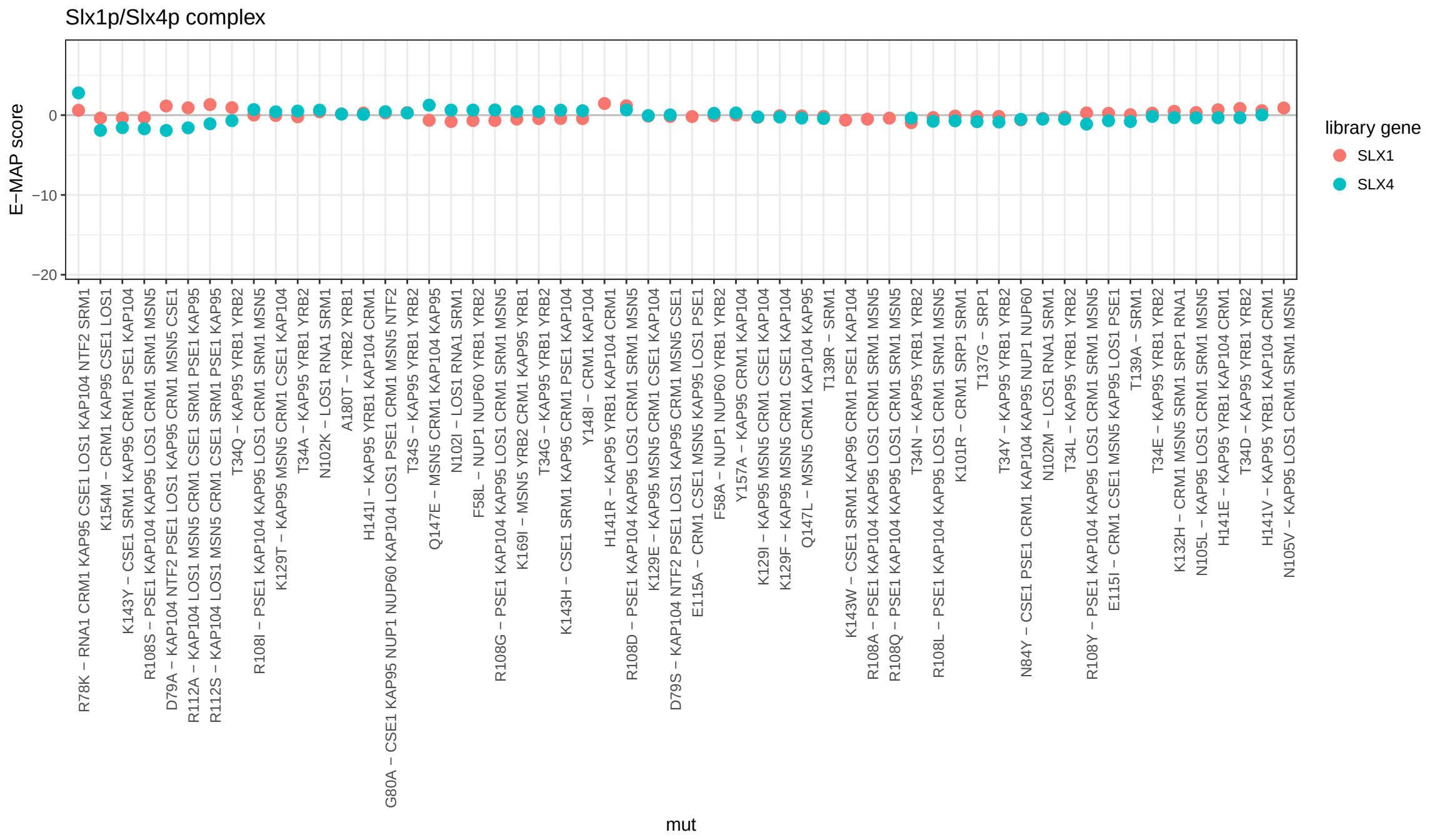

SBF complex
E−MAP score
0
−10
−20
mut
library gene
SWI4
SWI6
Q147L – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34Y – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T139A – SRM1
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139R – SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y148I – CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
Y157A – KAP95 CRM1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
F58L – NUP1 NUP60 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2

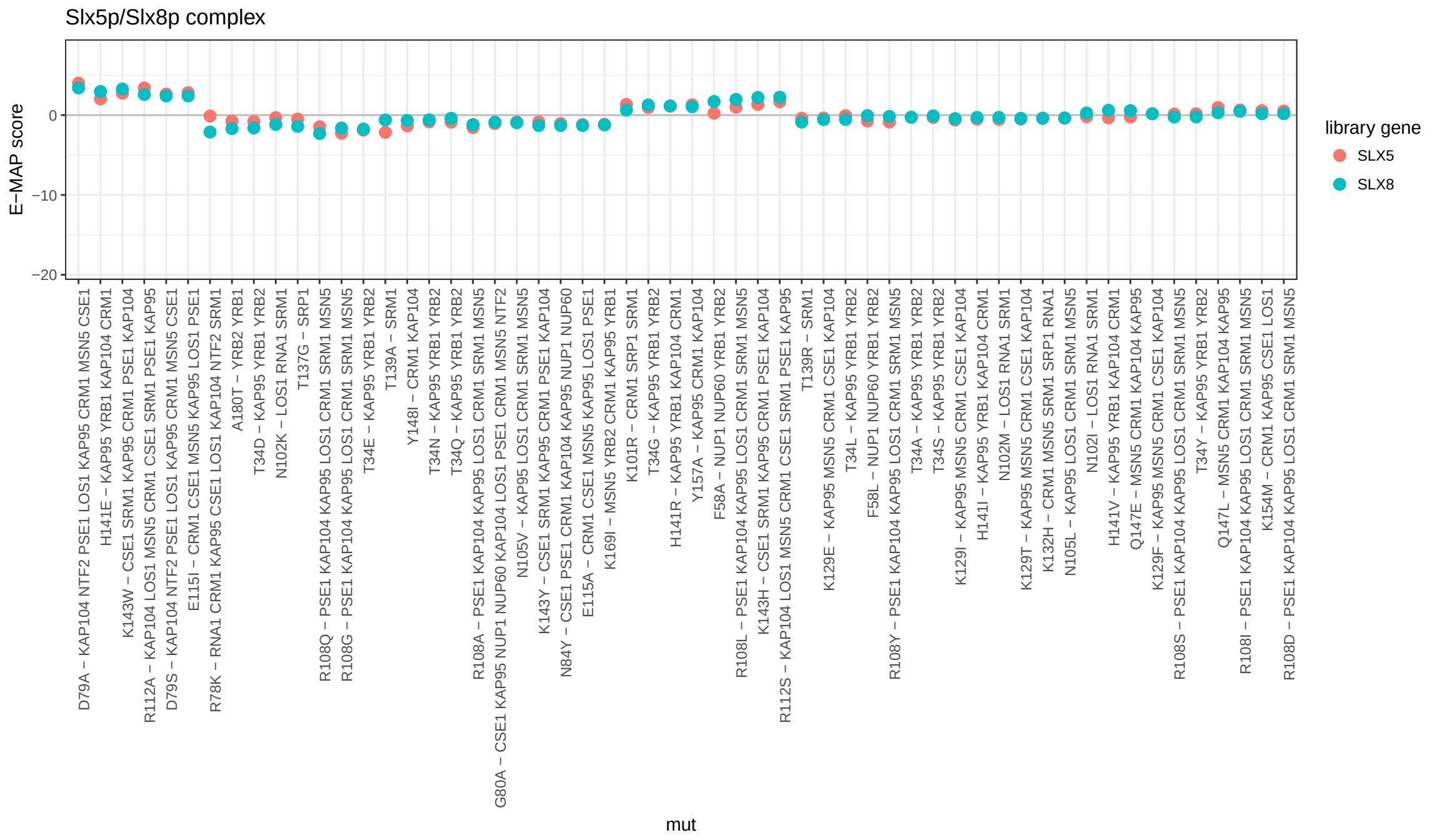

Set3p complex
E−MAP score
0
−10
−20
mut
library gene
HST1
SNT1
HOS2
SET3
SIF2
CPR1
HOS4
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
N102I – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
Y148I – CRM1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34A – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141V – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T34G – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2

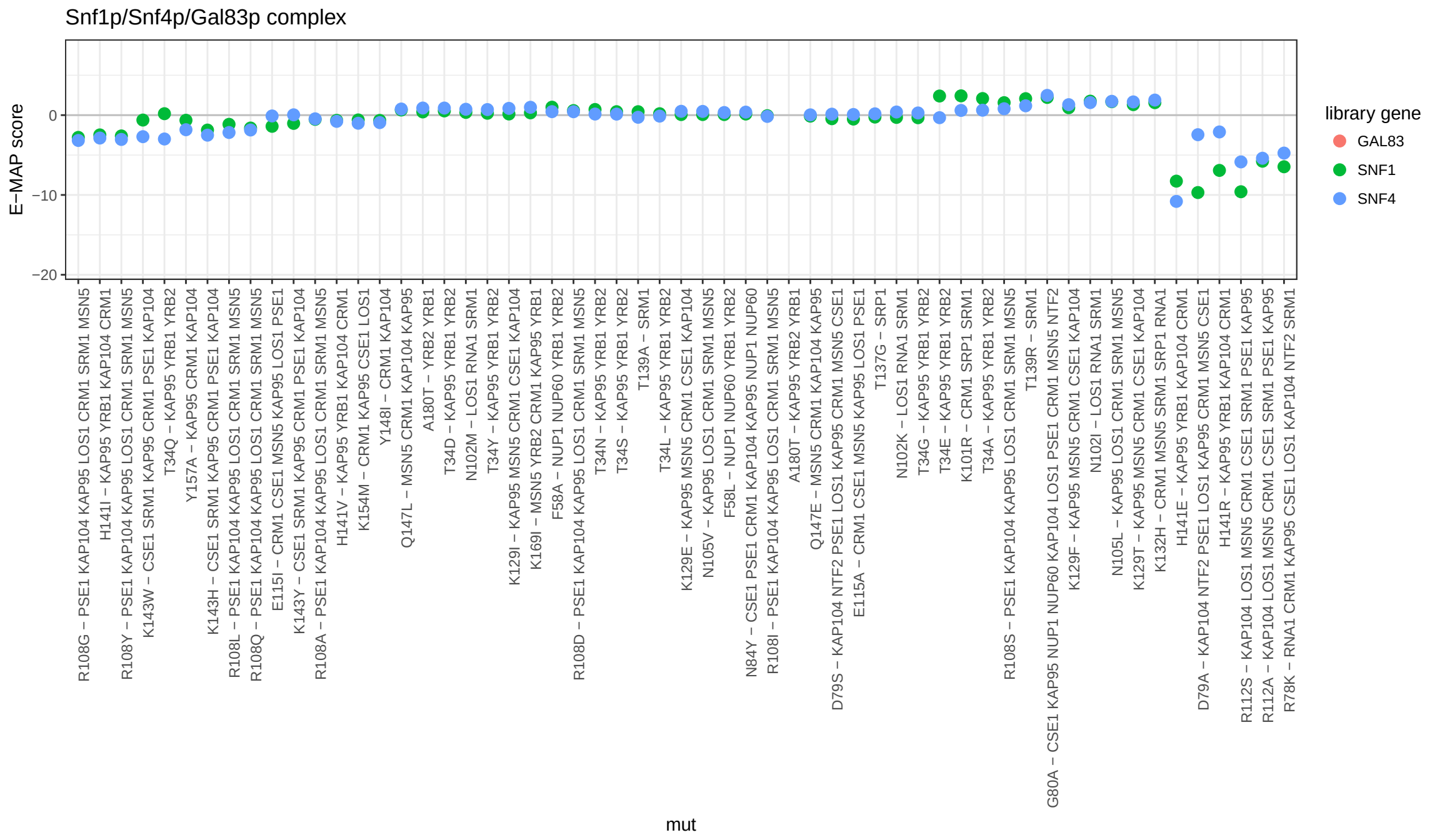

signal peptidase complex
E−MAP score
0
−10
−20
mut
library gene
SPC1
SPC2
SEC11
SPC3
F58A – NUP1 NUP60 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y157A – KAP95 CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
N102M – LOS1 RNA1 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Y – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
Y148I – CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2

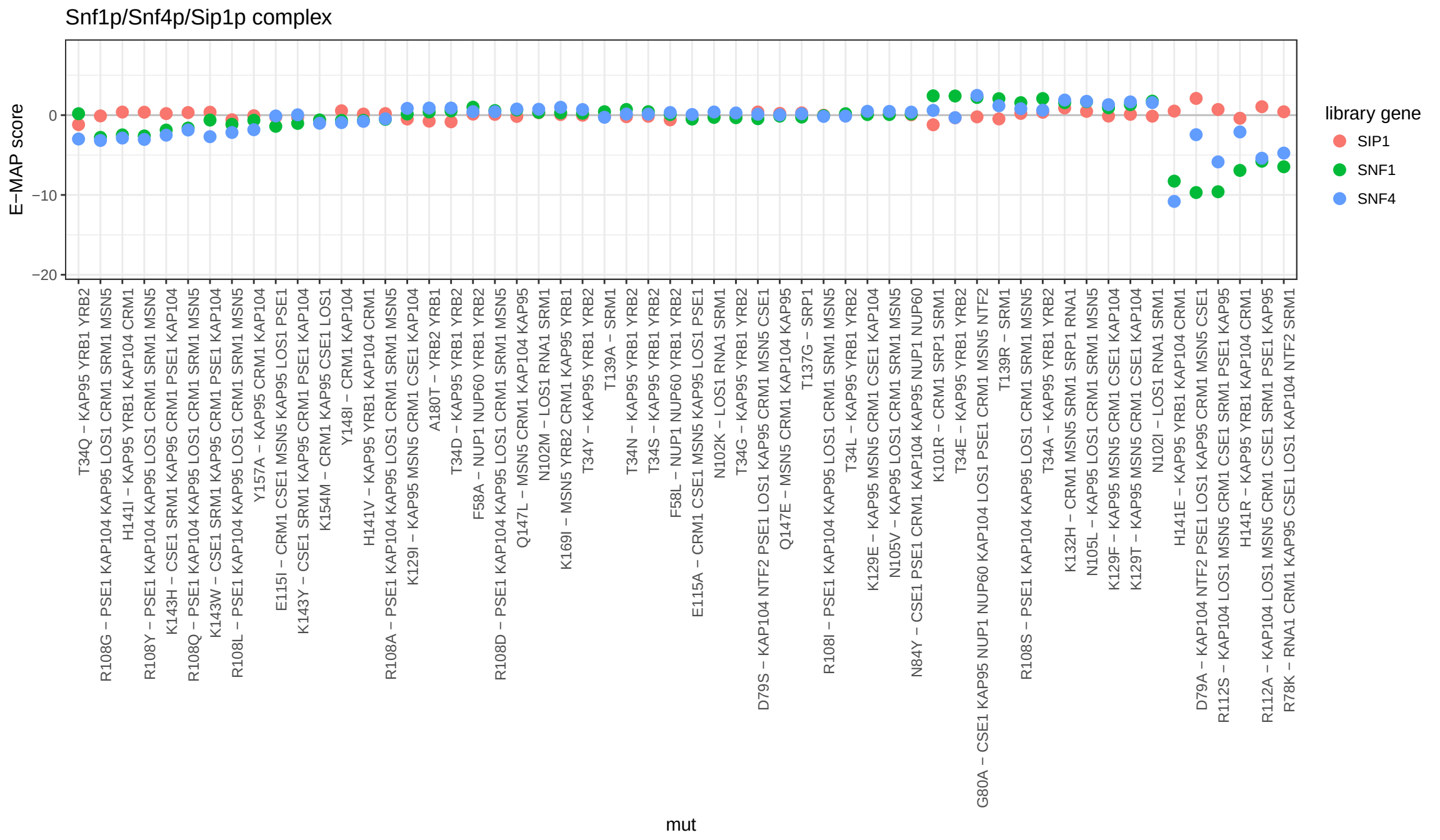

Ski Complex
E−MAP score
0
−10
−20
library gene
SKI8
SKI2
SKI3
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
F58A – NUP1 NUP60 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147E – MSN5 CRM1 KAP104 KAP95
T34N – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
A180T – KAP95 YRB2 YRB1
T139A – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Y157A – KAP95 CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
T34E – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34Q – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139R – SRM1
T34S – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
mut

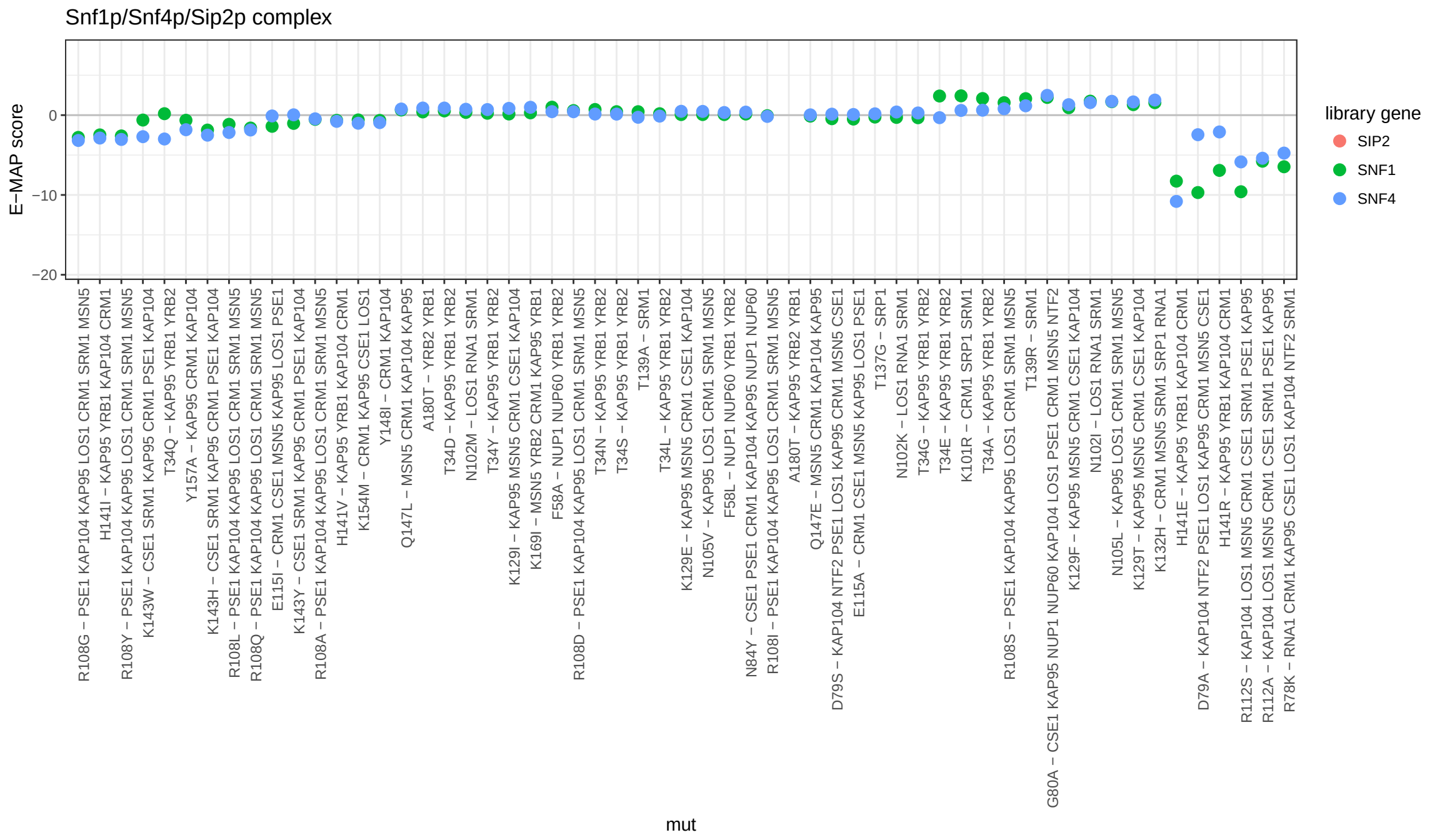
SLIK (SAGA−like) complex
E−MAP score
0
−10
−20
mut
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
T139R – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
T139A – SRM1
H141I – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34L – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
N102K – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58L – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
HFI1
CHD1
RTG2
TRA1
TAF9
TAF6
TAF5
TAF12
TAF10
SPT20
SPT7
ADA2
GCN5
NGG1

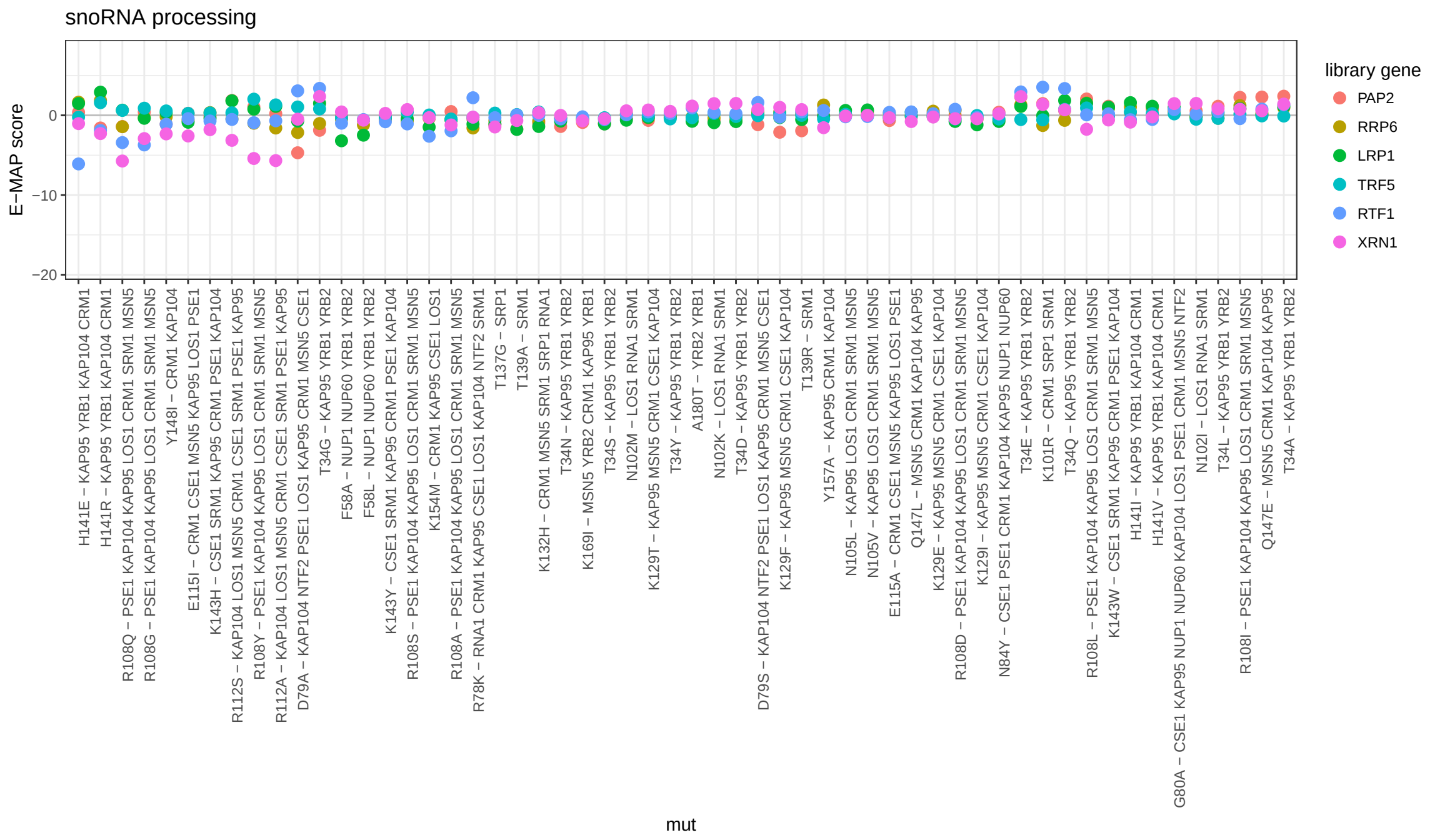

Slx1p/Slx4p complex
E−MAP score
0
−10
−20
library gene
SLX1
SLX4
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
H141I – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34S – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
F58L – NUP1 NUP60 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34G – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
F58A – NUP1 NUP60 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
T137G – SRP1
T34Y – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139A – SRM1
T34E – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
T34D – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
mut

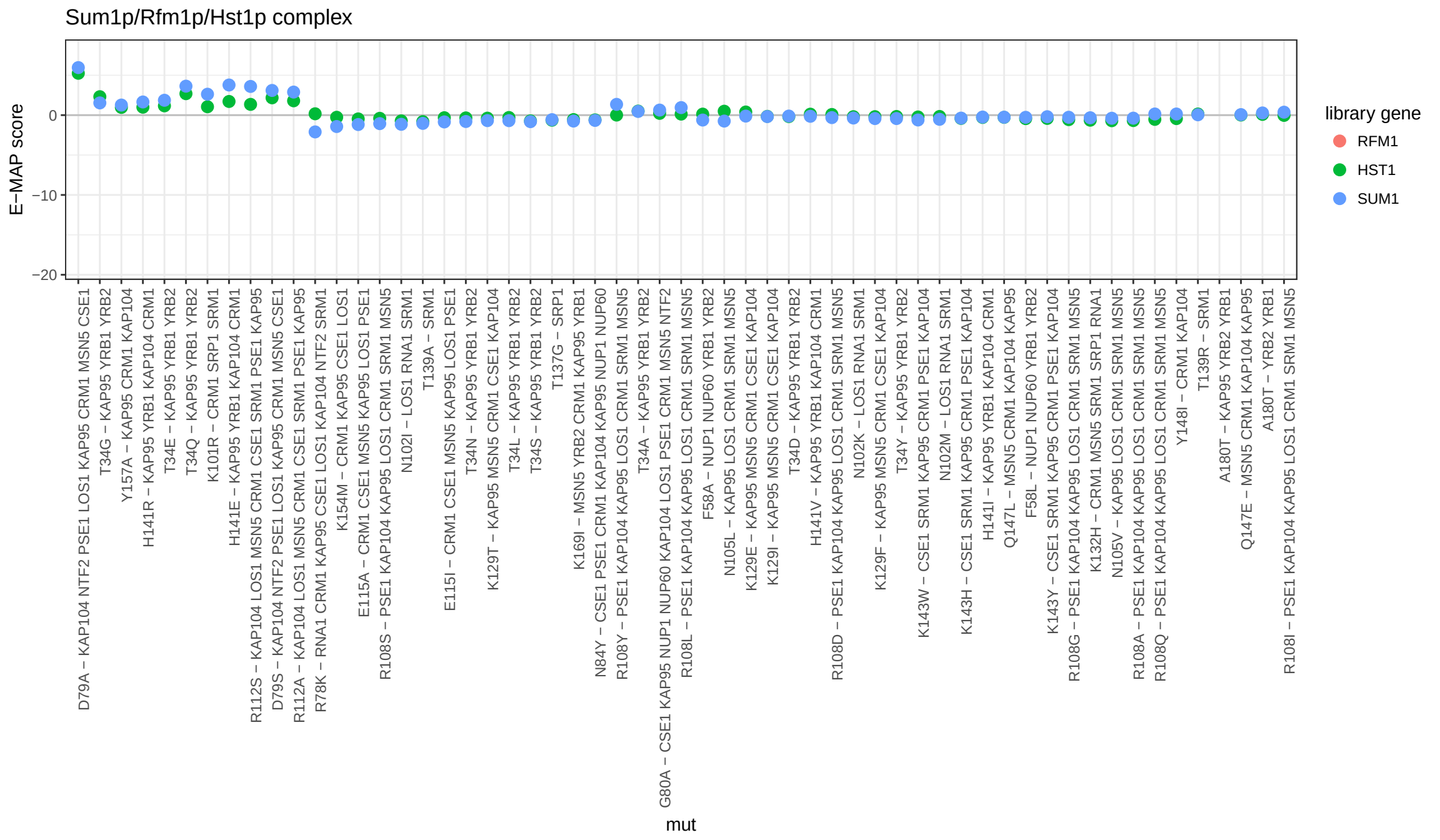

Slx5p/Slx8p complex
E−MAP score
0
−10
−20
library gene
SLX5
SLX8
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
T137G – SRP1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
T139A – SRM1
Y148I – CRM1 KAP104
T34N – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
Y157A – KAP95 CRM1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T139R – SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
H141V – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

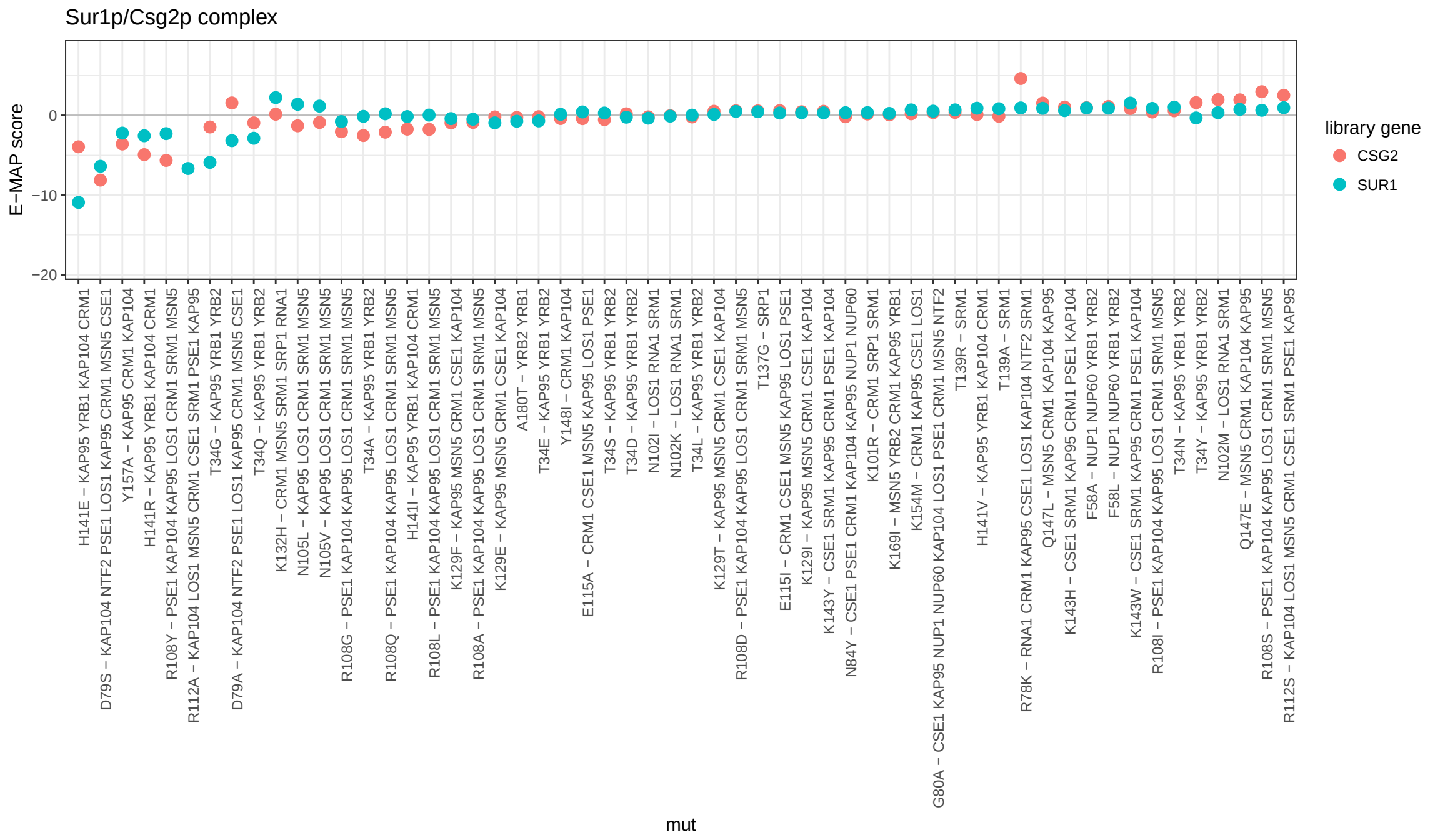

Snf1p/Snf4p/Gal83p complex
E−MAP score
0
−10
−20
mut
library gene
GAL83
SNF1
SNF4
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
T139A – SRM1
T34L – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
N102K – LOS1 RNA1 SRM1
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34A – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

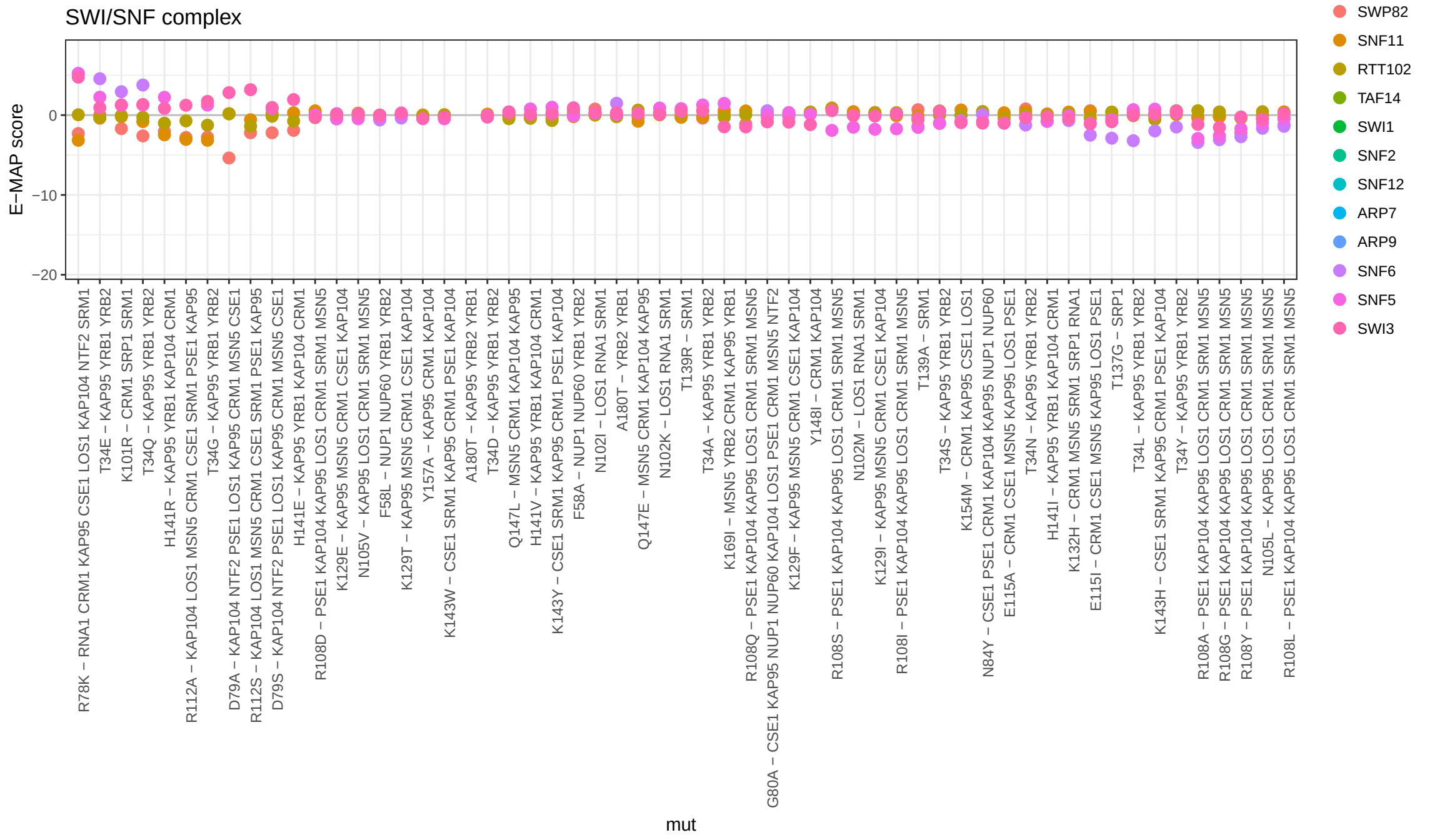

Snf1p/Snf4p/Sip1p complex
E−MAP score
0
−10
−20
library gene
SIP1
SNF1
SNF4
T34Q – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
N102M – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34Y – KAP95 YRB1 YRB2
T139A – SRM1
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Q147E – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut

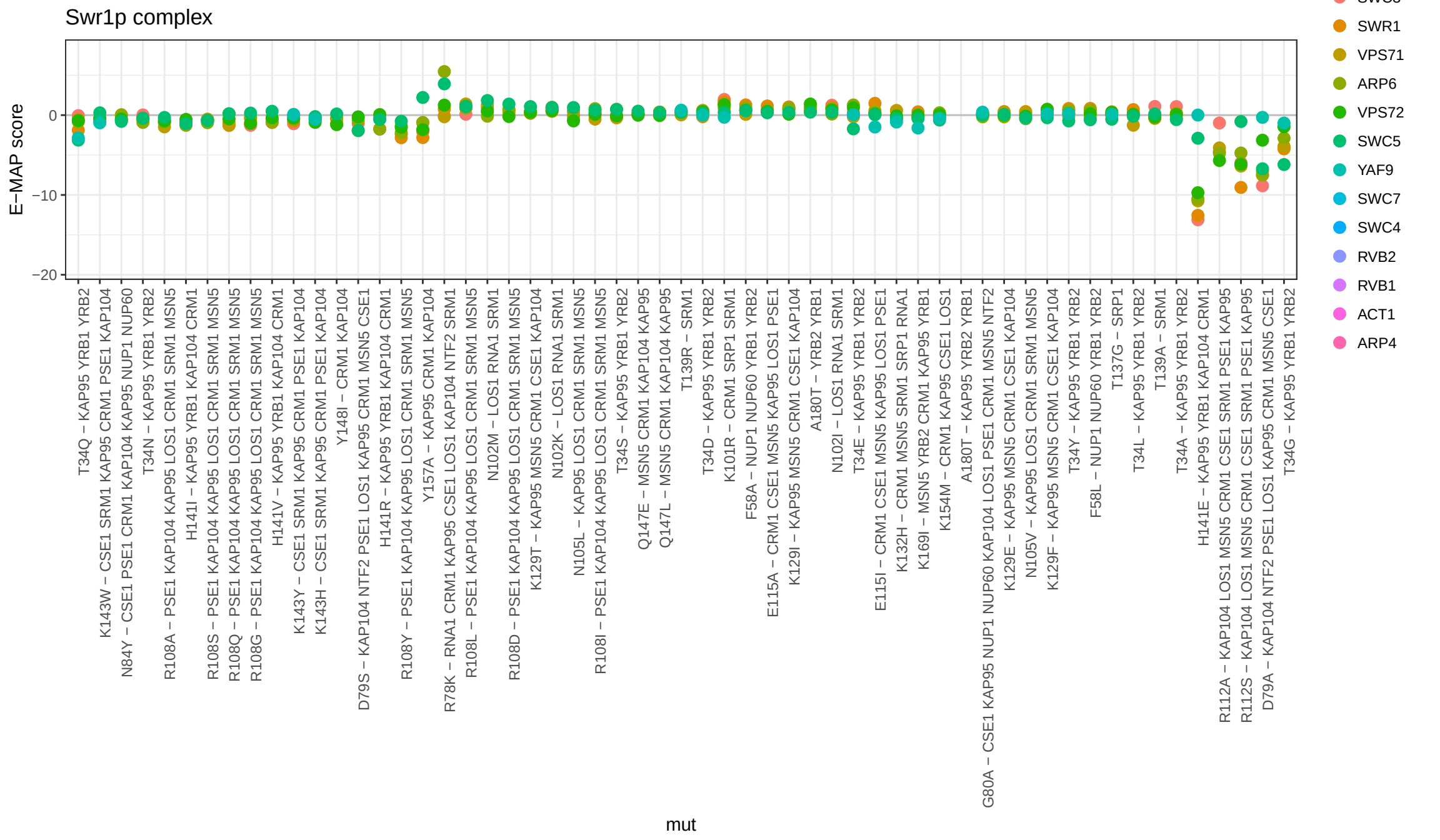

Snf1p/Snf4p/Sip2p complex
E−MAP score
0
−10
−20
mut
library gene
SIP2
SNF1
SNF4
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
T139A – SRM1
T34L – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
N102K – LOS1 RNA1 SRM1
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34A – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1

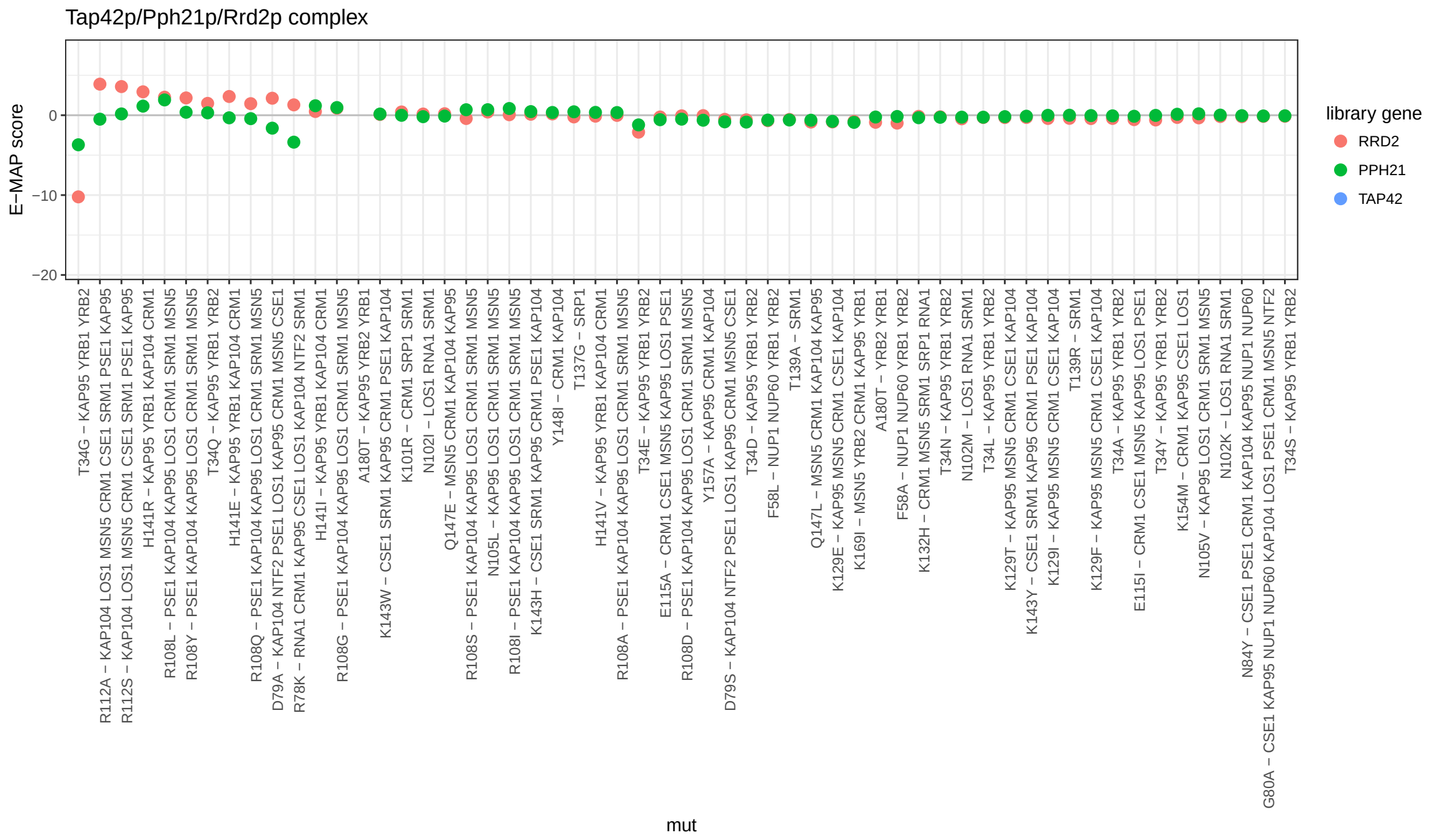

snoRNA processing
E−MAP score
0
−10
−20
library gene
PAP2
RRP6
LRP1
TRF5
RTF1
XRN1
H141E – KAP95 YRB1 KAP104 CRM1
H141R – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T137G – SRP1
T139A – SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34S – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N102K – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
Y157A – KAP95 CRM1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N102I – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
T34A – KAP95 YRB1 YRB2
mut

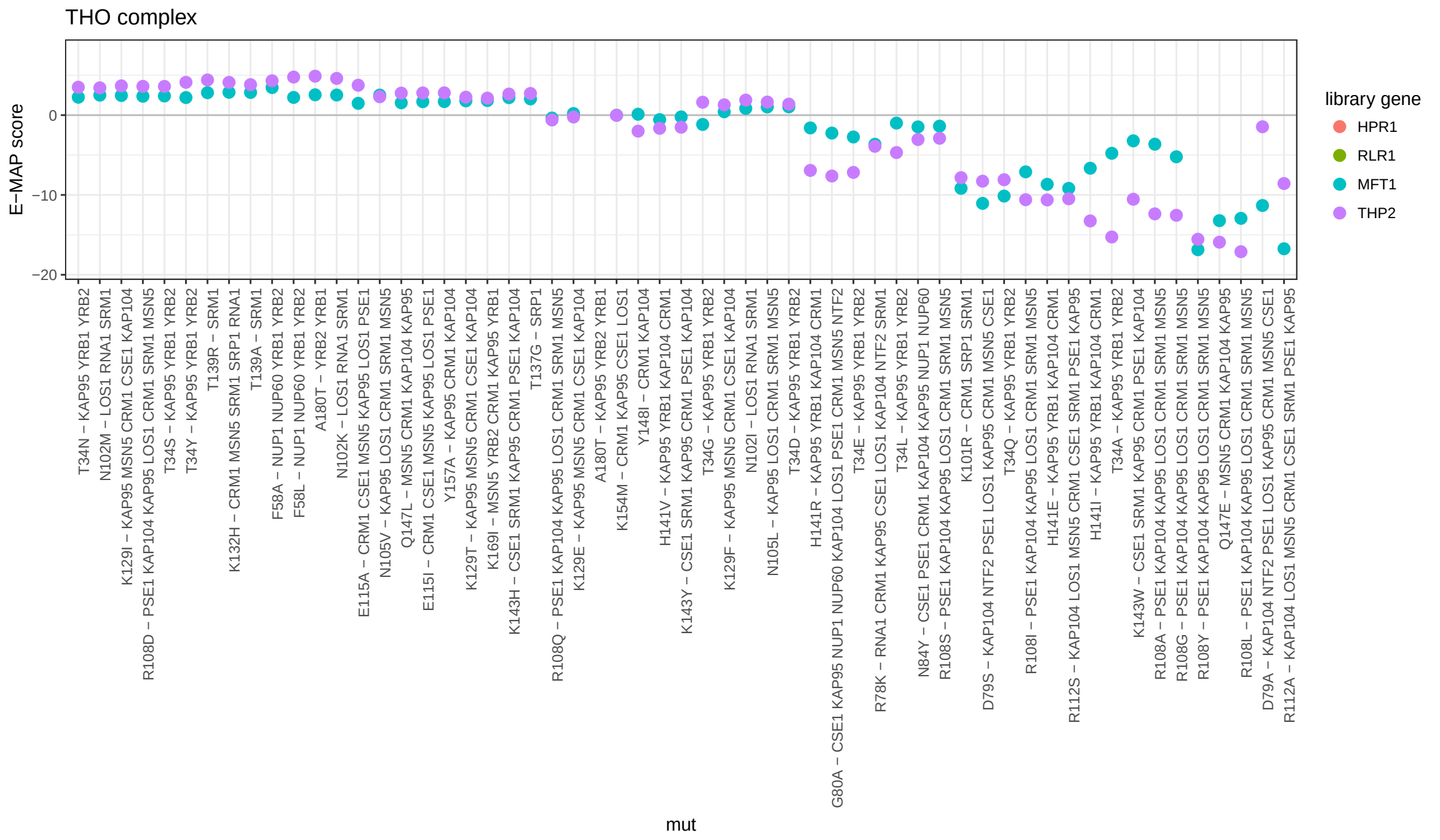

Sum1p/Rfm1p/Hst1p complex
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K154M – CRM1 KAP95 CSE1 LOS1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34N – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
T137G – SRP1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
T139R – SRM1
A180T – KAP95 YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
library gene
RFM1
HST1
SUM1

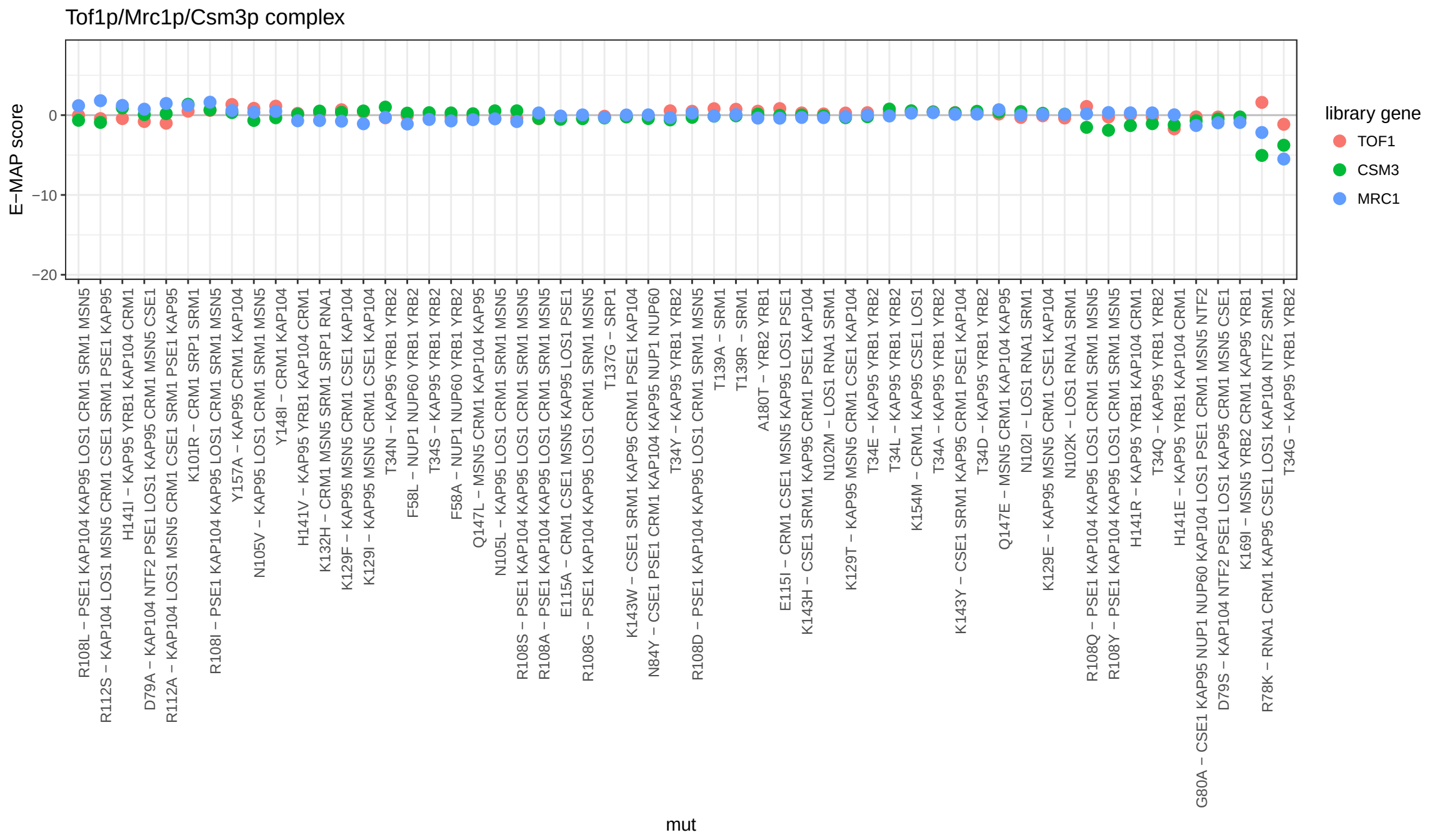

Sur1p/Csg2p complex
E−MAP score
0
−10
−20
mut
library gene
CSG2
SUR1
H141E – KAP95 YRB1 KAP104 CRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
Y157A – KAP95 CRM1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
T34E – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34S – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K101R – CRM1 SRP1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T139R – SRM1
H141V – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

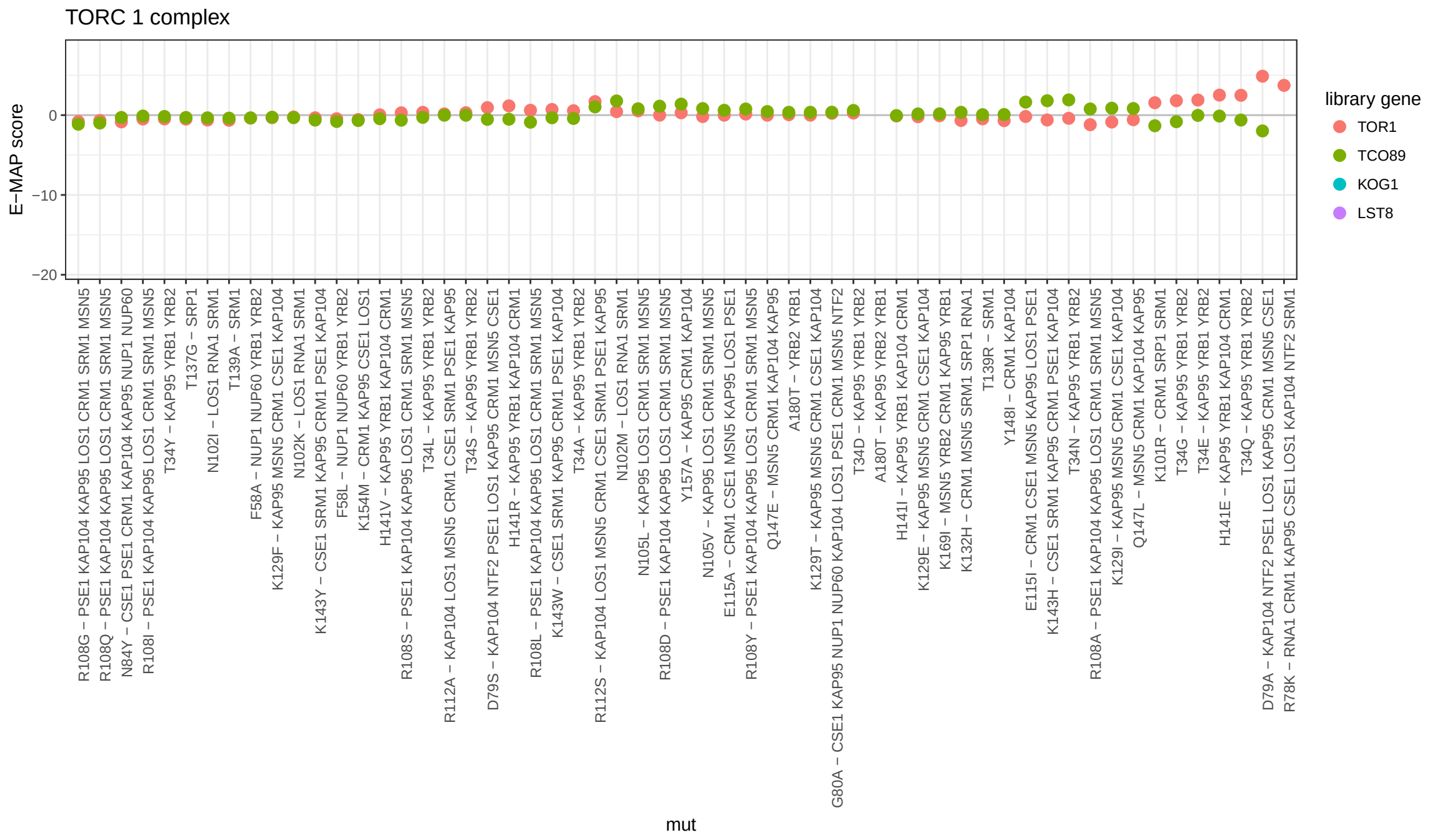

SWI/SNF complex
E−MAP score
0
−10
−20
mut
SWP82
SNF11
RTT102
TAF14
SWI1
SNF2
SNF12
ARP7
ARP9
SNF6
SNF5
SWI3
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Y157A – KAP95 CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – KAP95 YRB2 YRB1
T34D – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
A180T – YRB2 YRB1
Q147E – MSN5 CRM1 KAP104 KAP95
N102K – LOS1 RNA1 SRM1
T139R – SRM1
T34A – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141V – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Y148I – CRM1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
T34S – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34N – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T137G – SRP1
T34L – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5

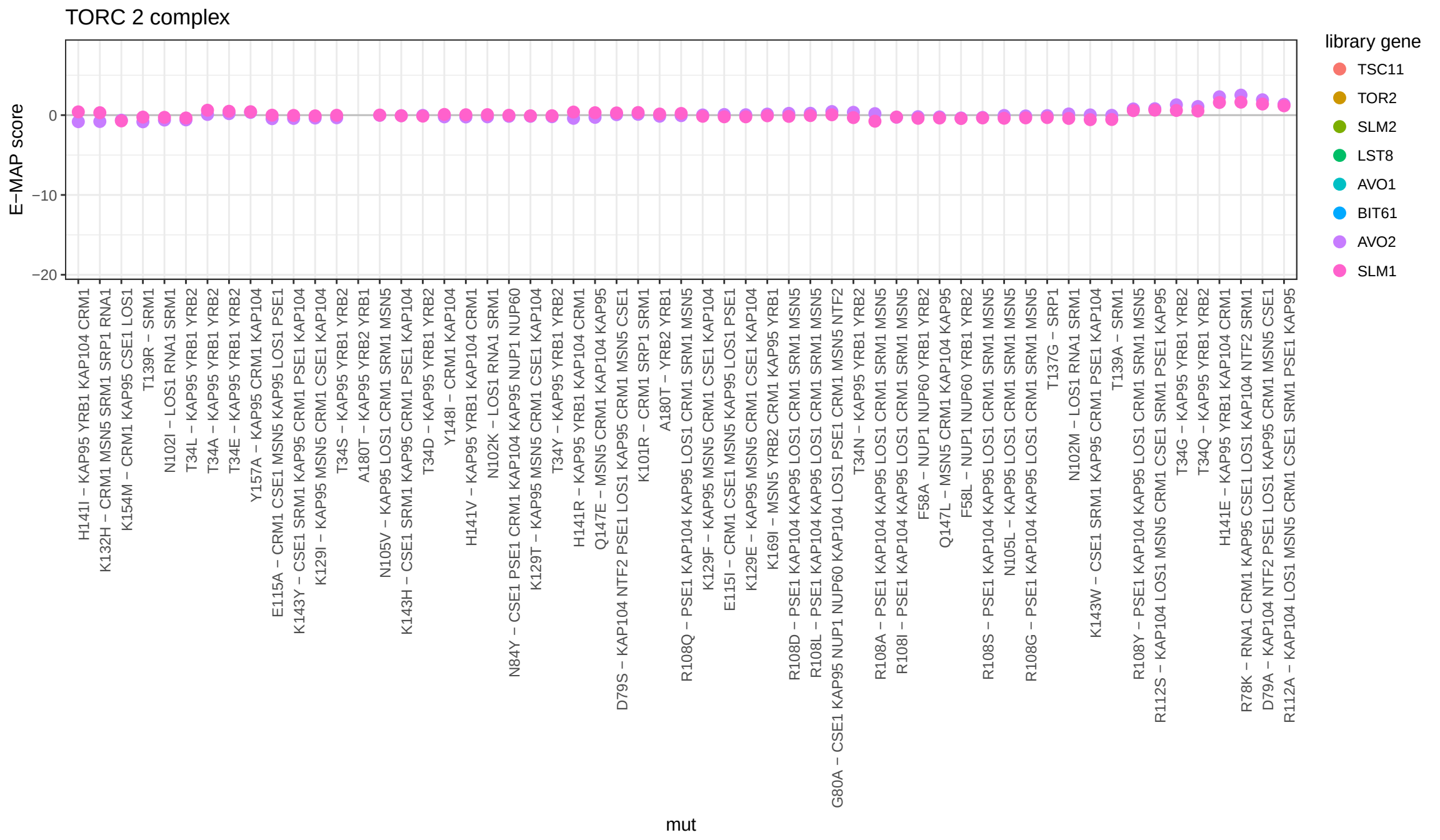

Swr1p complex
E−MAP score
0
−10
−20
mut
SWR1
VPS71
ARP6
VPS72
SWC5
YAF9
SWC7
SWC4
RVB2
RVB1
ACT1
ARP4
T34Q – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34N – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
Q147L – MSN5 CRM1 KAP104 KAP95
T139R – SRM1
T34D – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
N102I – LOS1 RNA1 SRM1
T34E – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
A180T – KAP95 YRB2 YRB1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
T34L – KAP95 YRB1 YRB2
T139A – SRM1
T34A – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2

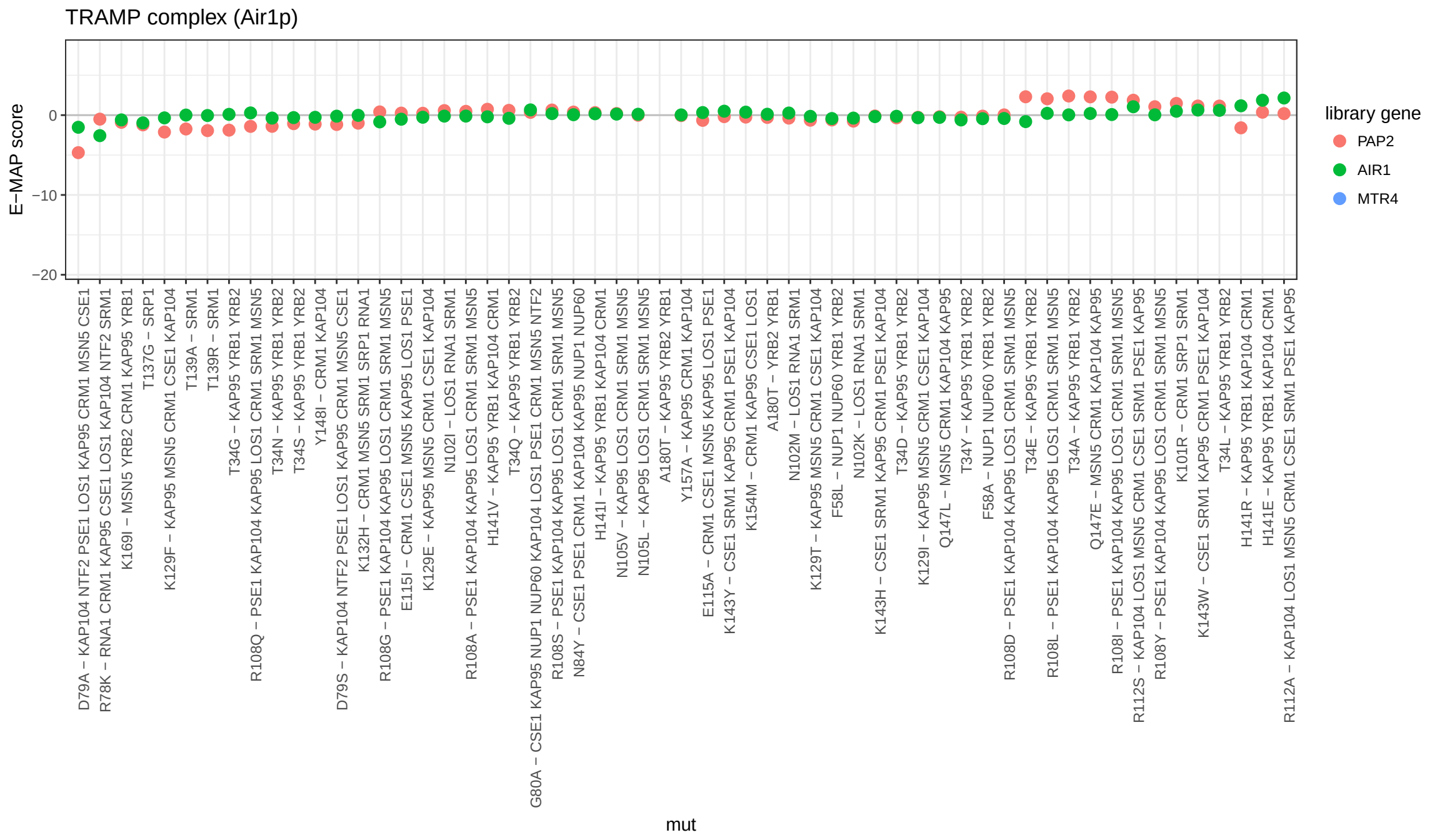

Tap42p/Pph21p/Rrd2p complex
E−MAP score
0
−10
−20
library gene
RRD2
PPH21
TAP42
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K101R – CRM1 SRP1 SRM1
N102I – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
T137G – SRP1
H141V – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34D – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T139A – SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
A180T – YRB2 YRB1
F58A – NUP1 NUP60 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34N – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34S – KAP95 YRB1 YRB2
mut

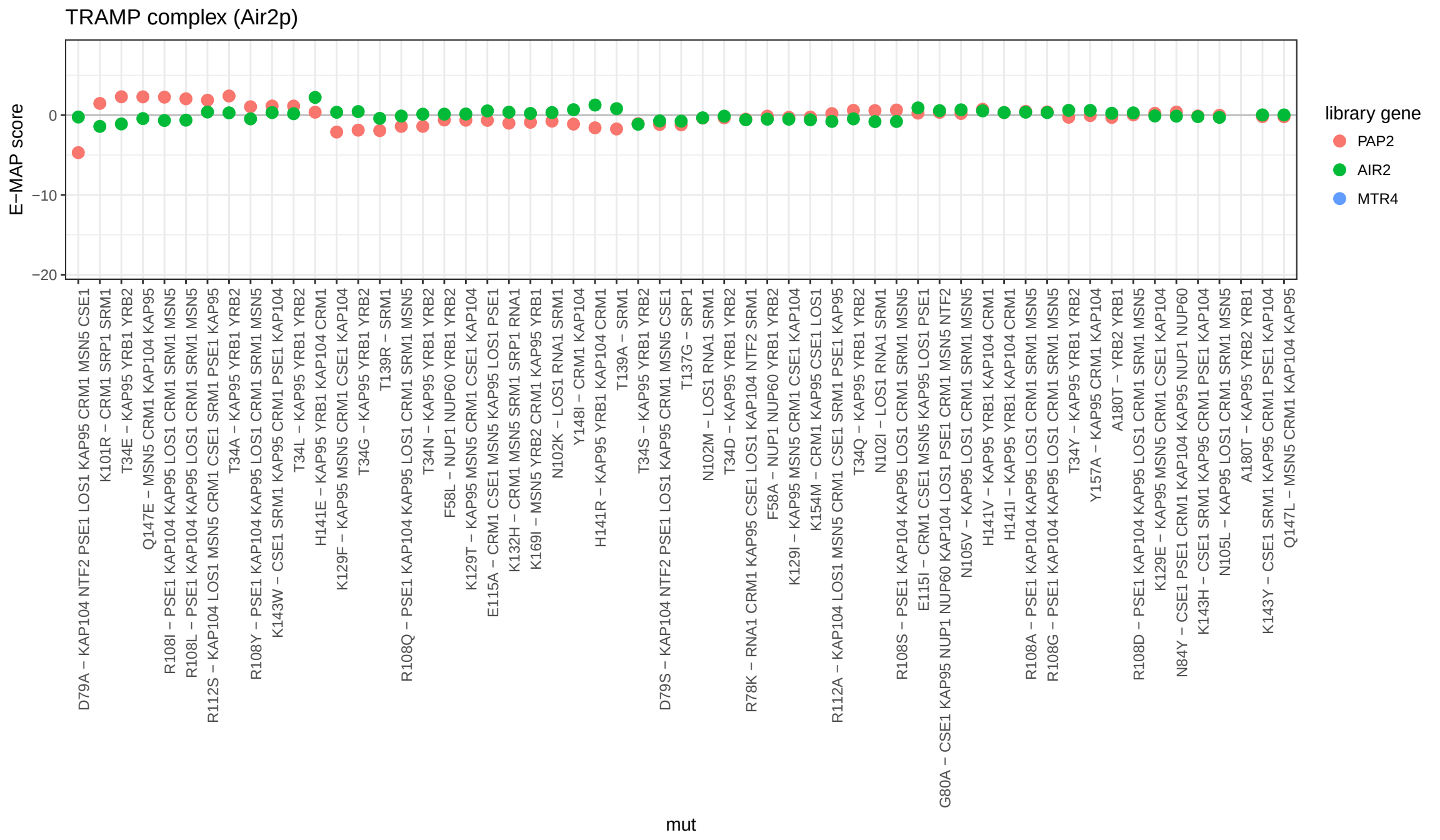

THO complex
E−MAP score
0
−10
−20
mut
library gene
HPR1
RLR1
MFT1
THP2
T34N – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
T139R – SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139A – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
A180T – YRB2 YRB1
N102K – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Y157A – KAP95 CRM1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34G – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34E – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34L – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
T34A – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

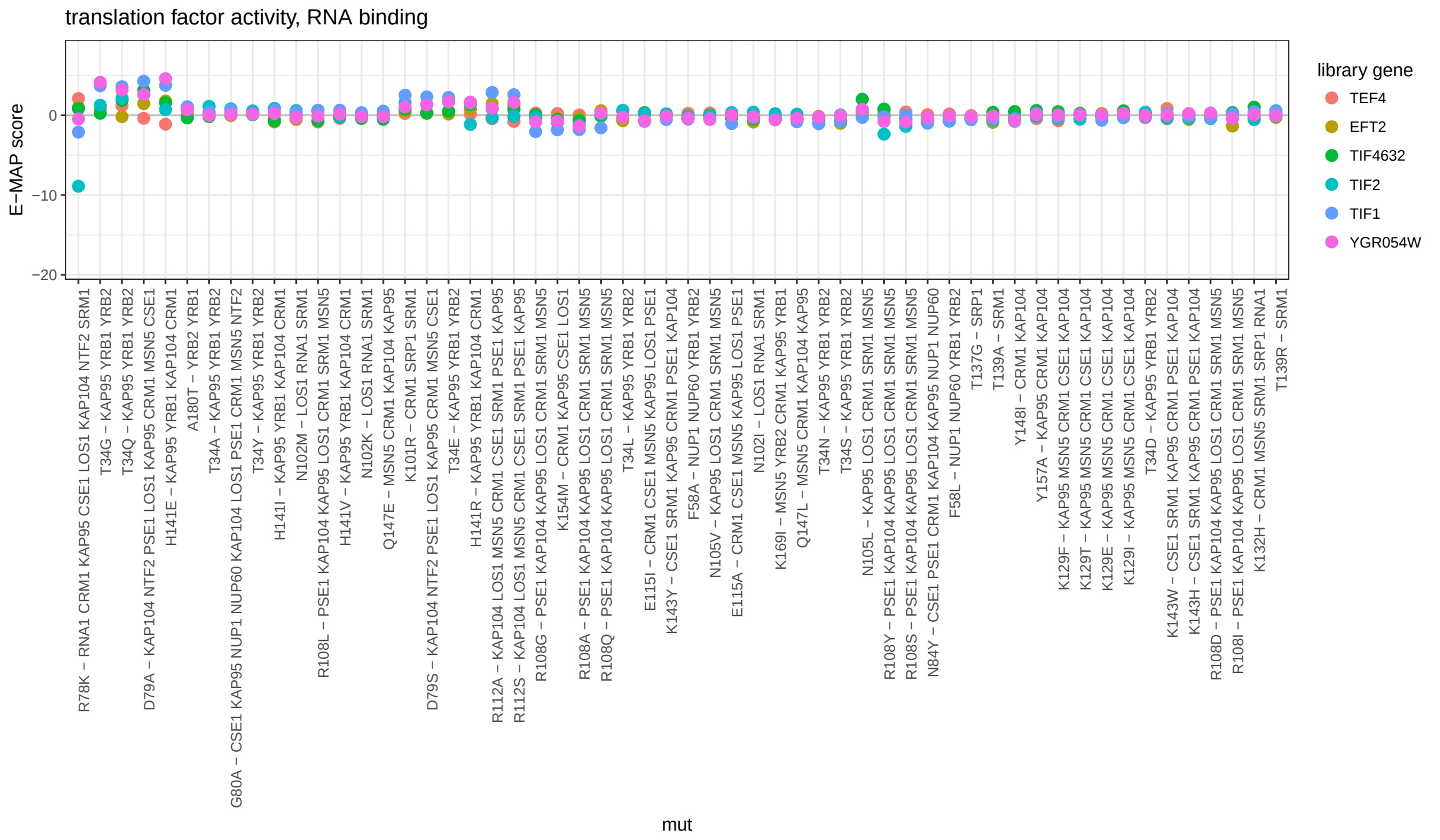

Tof1p/Mrc1p/Csm3p complex
E−MAP score
0
−10
−20
mut
library gene
TOF1
CSM3
MRC1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
T139R – SRM1
A180T – YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34E – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
T34A – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
N102I – LOS1 RNA1 SRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2

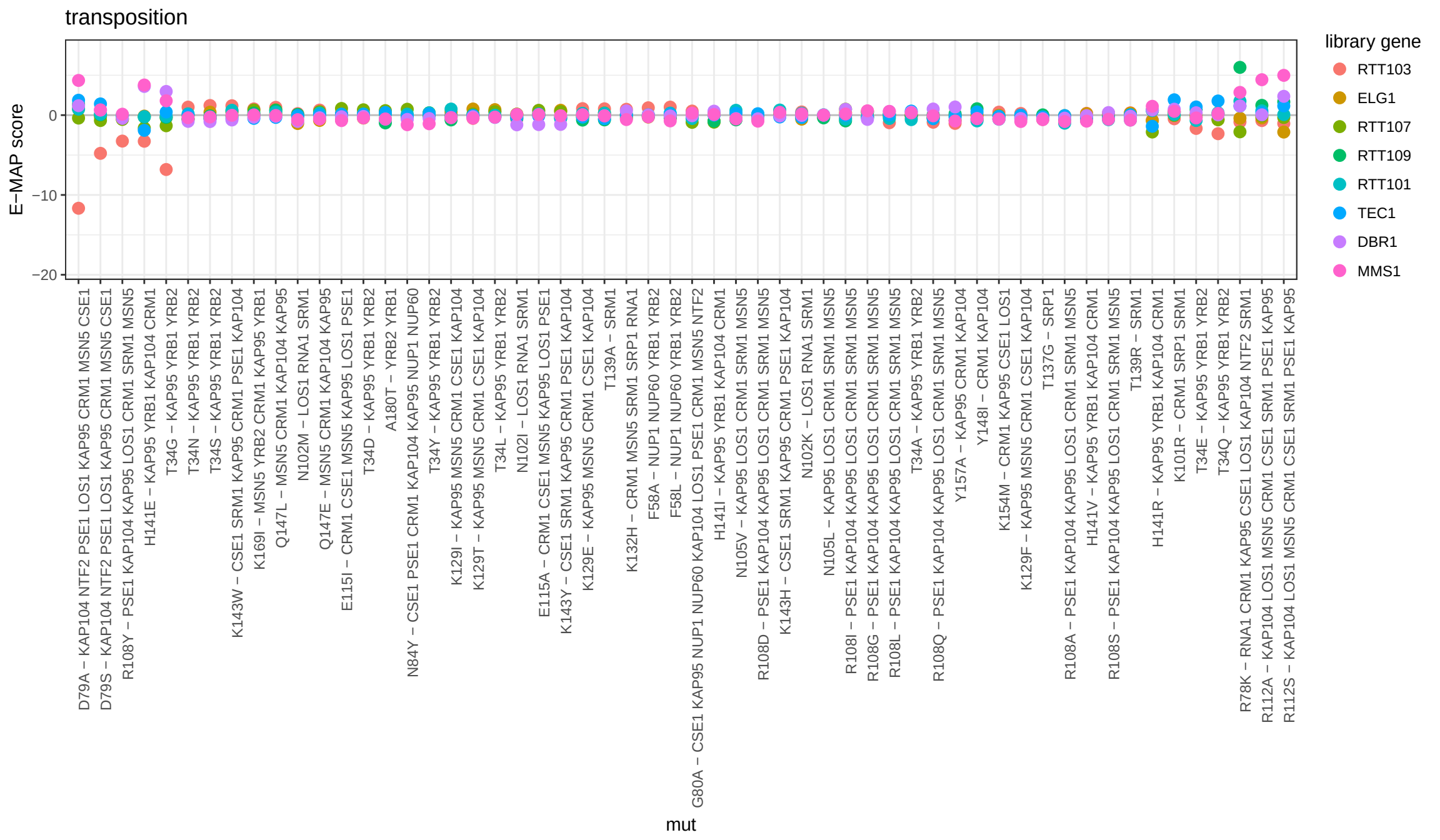

TORC 1 complex
E−MAP score
0
−10
−20
library gene
TOR1
TCO89
KOG1
LST8
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
T137G – SRP1
N102I – LOS1 RNA1 SRM1
T139A – SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
H141V – KAP95 YRB1 KAP104 CRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34S – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
N102M – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Q147E – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
H141I – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139R – SRM1
Y148I – CRM1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut

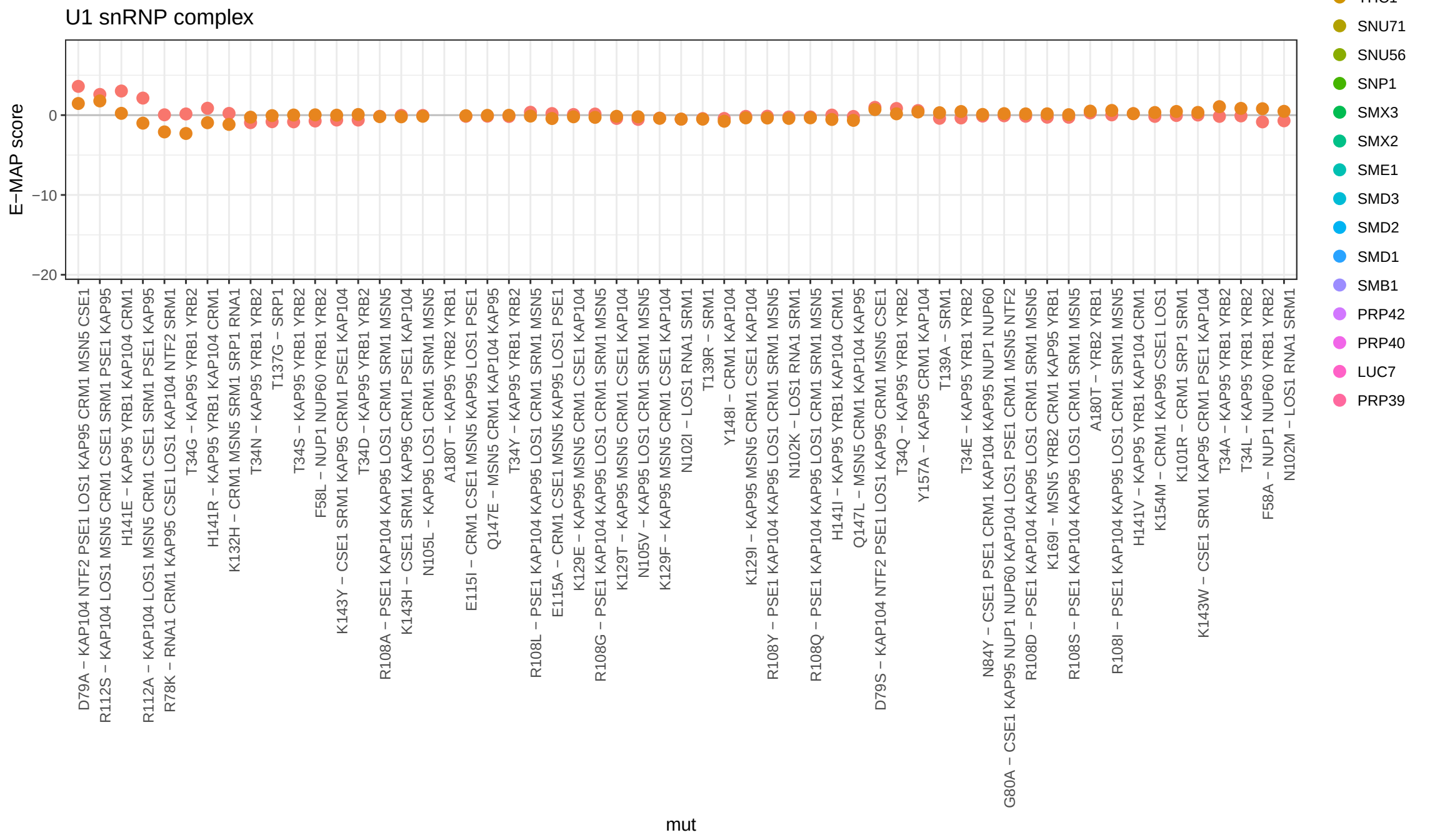

TORC 2 complex
E−MAP score
0
−10
−20
mut
library gene
TSC11
TOR2
SLM2
LST8
AVO1
BIT61
AVO2
SLM1
H141I – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K154M – CRM1 KAP95 CSE1 LOS1
T139R – SRM1
N102I – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34S – KAP95 YRB1 YRB2
A180T – KAP95 YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34Y – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
A180T – YRB2 YRB1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34N – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
N102M – LOS1 RNA1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T139A – SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95

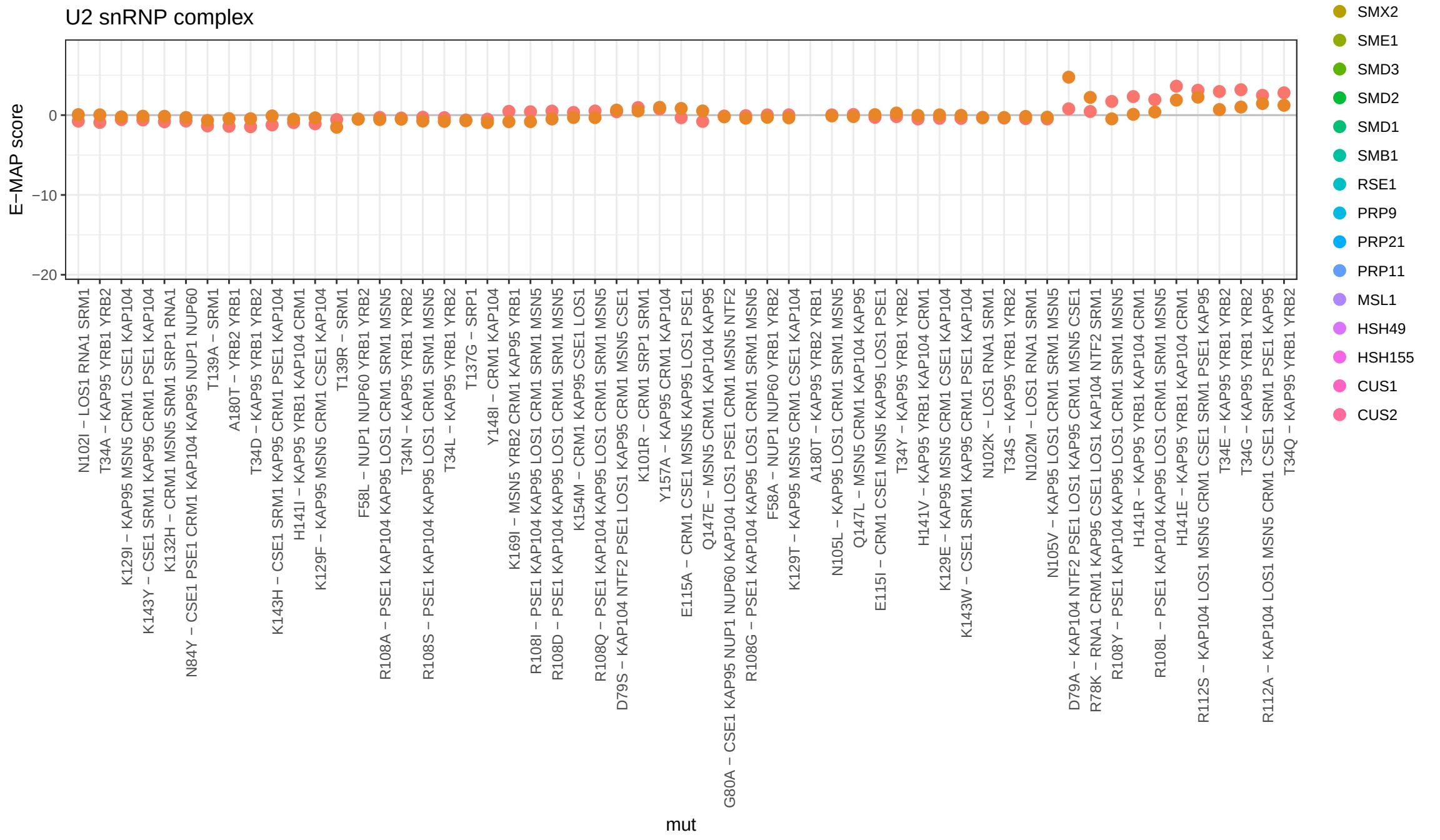

TRAMP complex (Air1p)
E−MAP score
0
−10
−20
library gene
PAP2
AIR1
MTR4
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T137G – SRP1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
T139R – SRM1
T34G – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
Y157A – KAP95 CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
A180T – YRB2 YRB1
N102M – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
mut

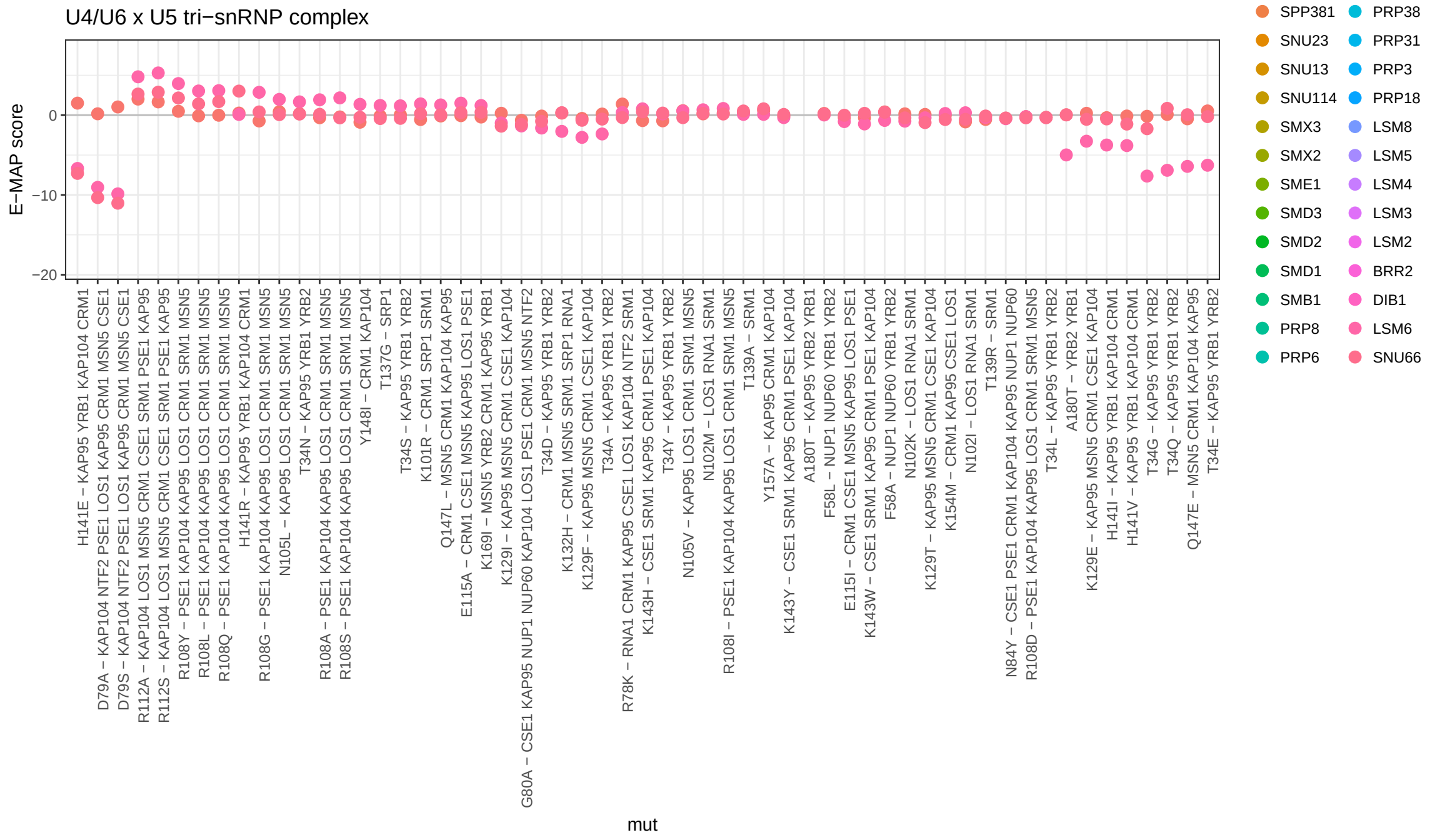

TRAMP complex (Air2p)
E−MAP score
0
−10
−20
library gene
PAP2
AIR2
MTR4
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34A – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34L – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34G – KAP95 YRB1 YRB2
T139R – SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N102K – LOS1 RNA1 SRM1
Y148I – CRM1 KAP104
H141R – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
T34S – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T137G – SRP1
N102M – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34Y – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
A180T – YRB2 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
mut

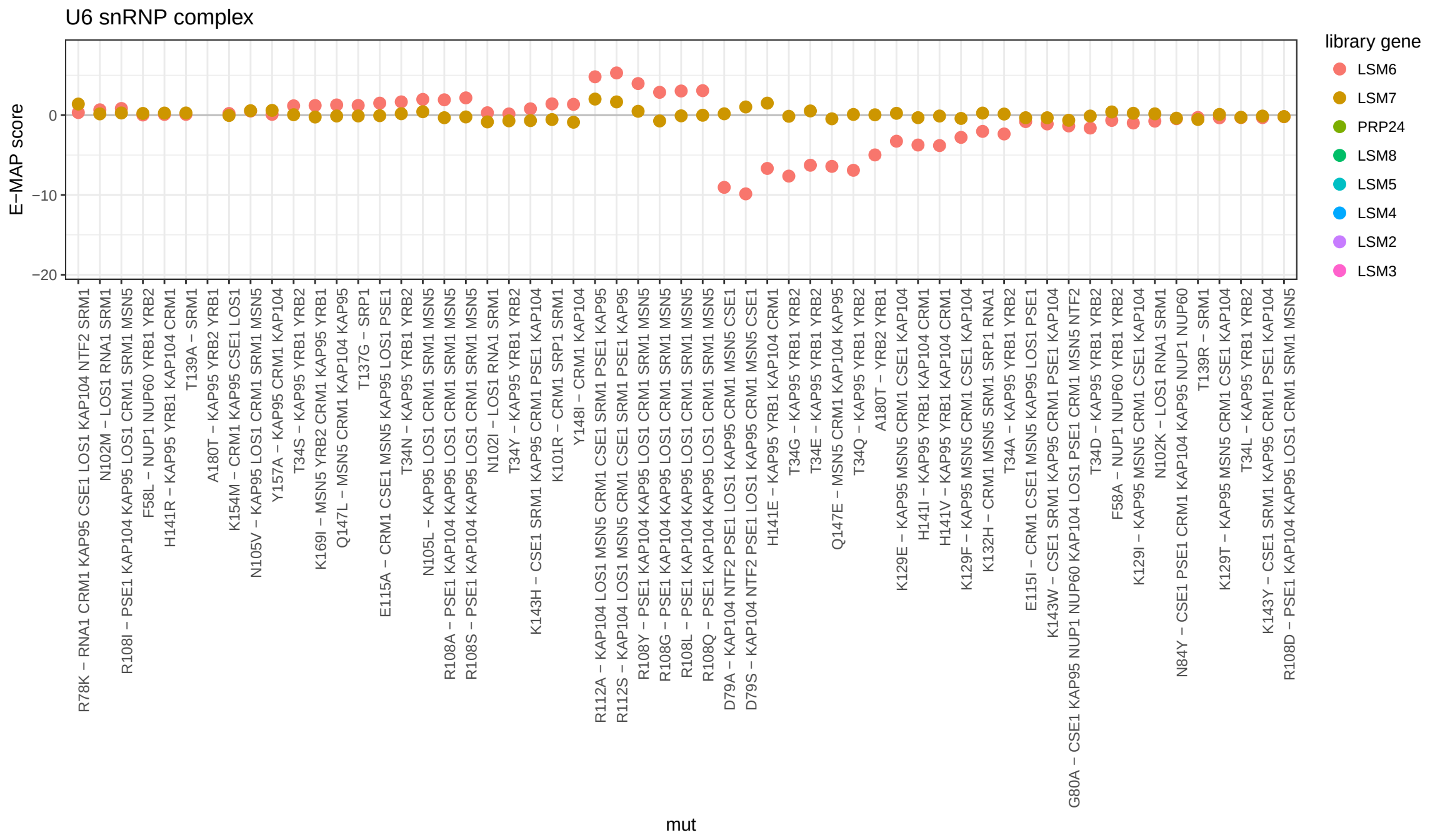

translation factor activity, RNA binding
E−MAP score
0
−10
−20
library gene
TEF4
EFT2
TIF4632
TIF2
TIF1
YGR054W
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
A180T – YRB2 YRB1
T34A – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34Y – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
N102M – LOS1 RNA1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N102K – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
K101R – CRM1 SRP1 SRM1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58L – NUP1 NUP60 YRB1 YRB2
T137G – SRP1
T139A – SRM1
Y148I – CRM1 KAP104
Y157A – KAP95 CRM1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T139R – SRM1
mut

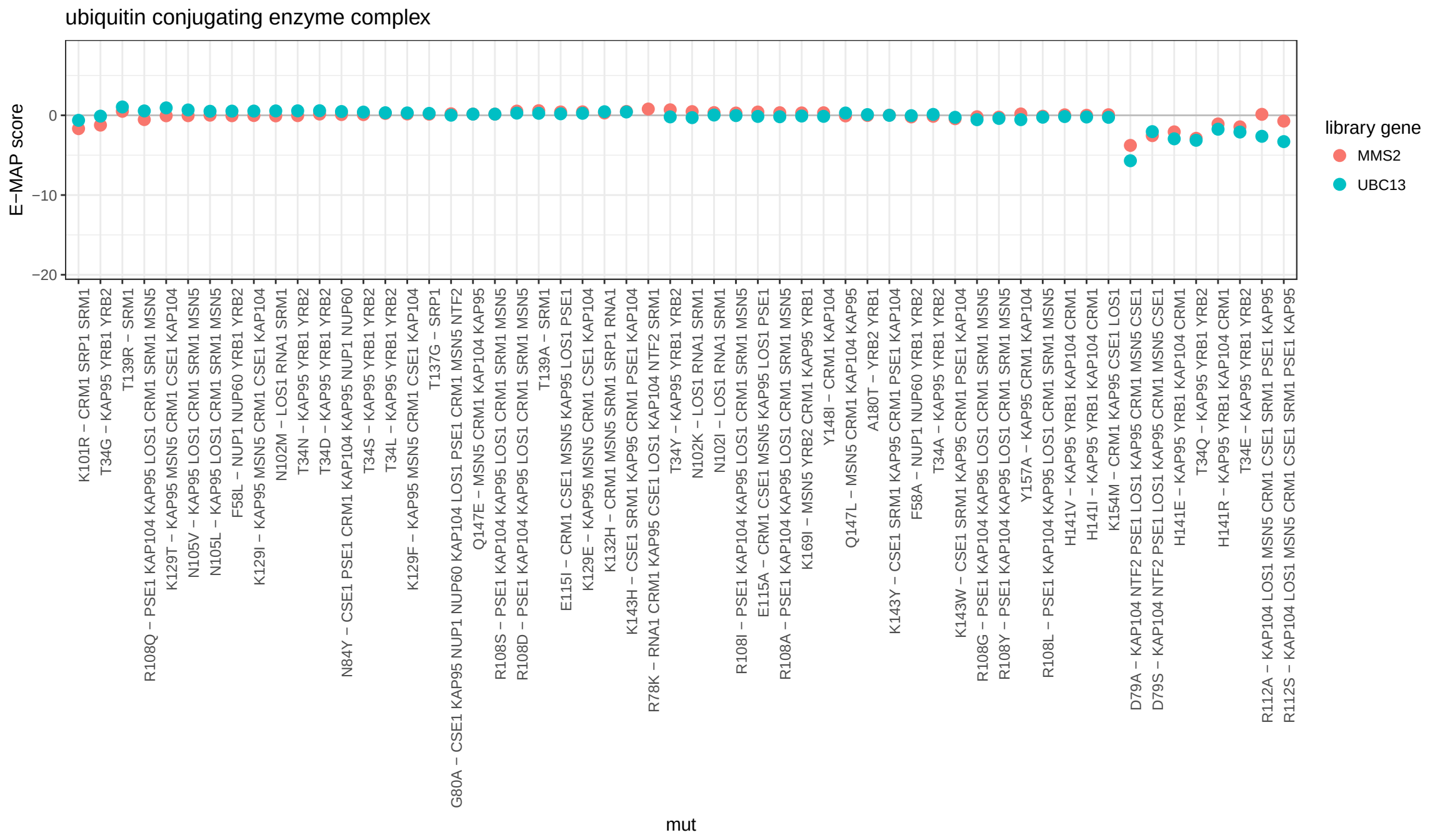

transposition
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
N102M – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34Y – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139A – SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
F58A – NUP1 NUP60 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141I – KAP95 YRB1 KAP104 CRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
Y148I – CRM1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
H141R – KAP95 YRB1 KAP104 CRM1
K101R – CRM1 SRP1 SRM1
T34E – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
library gene
RTT103
ELG1
RTT107
RTT109
RTT101
TEC1
DBR1
MMS1

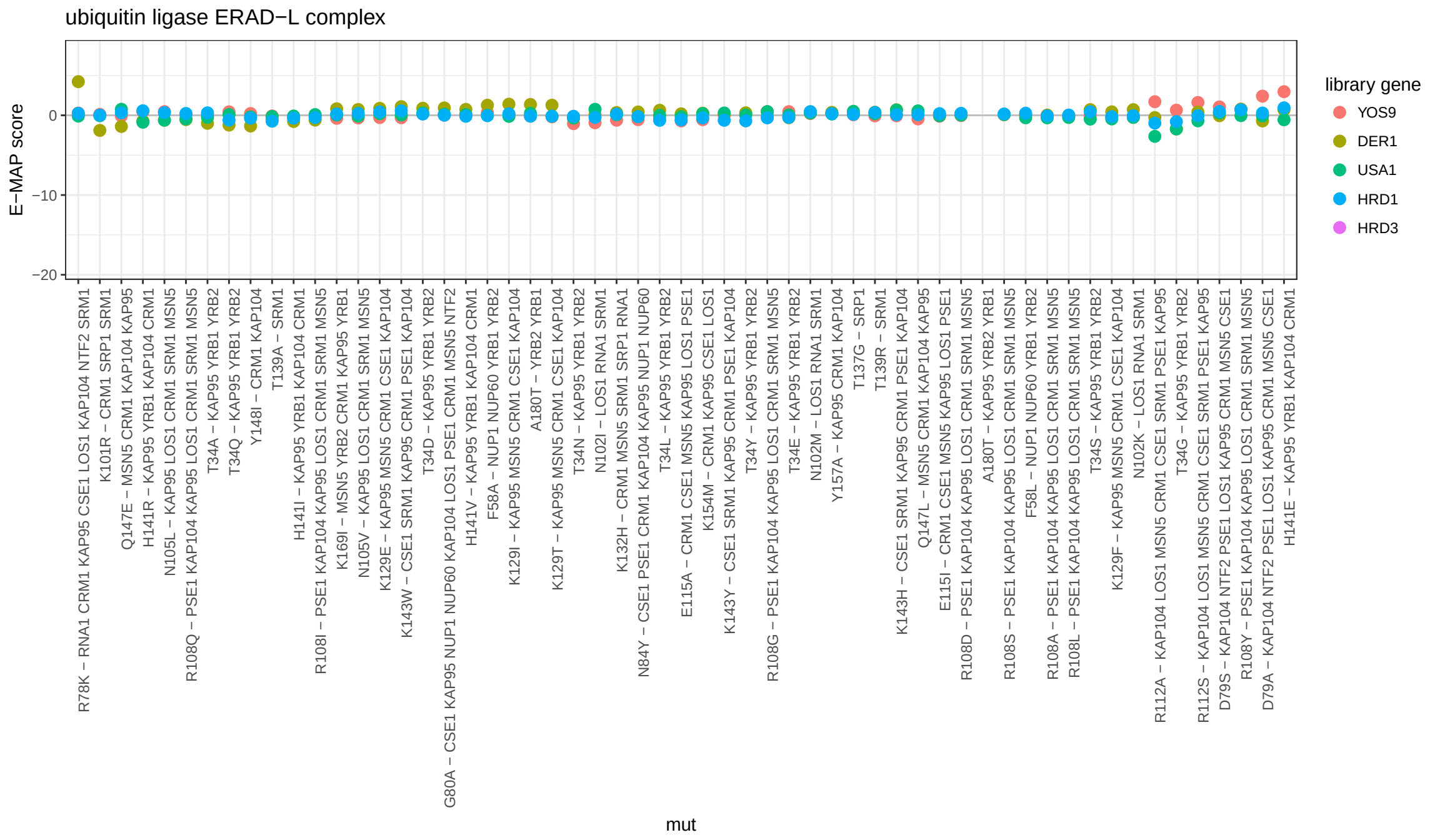

U1 snRNP complex
E−MAP score
0
−10
−20
mut
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34G – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34N – KAP95 YRB1 YRB2
T137G – SRP1
T34S – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
T34Y – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102I – LOS1 RNA1 SRM1
T139R – SRM1
Y148I – CRM1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102K – LOS1 RNA1 SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141I – KAP95 YRB1 KAP104 CRM1
Q147L – MSN5 CRM1 KAP104 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
T139A – SRM1
T34E – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – YRB2 YRB1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
K101R – CRM1 SRP1 SRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34A – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
SNU71
SNU56
SNP1
SMX3
SMX2
SME1
SMD3
SMD2
SMD1
SMB1
PRP42
PRP40
LUC7
PRP39

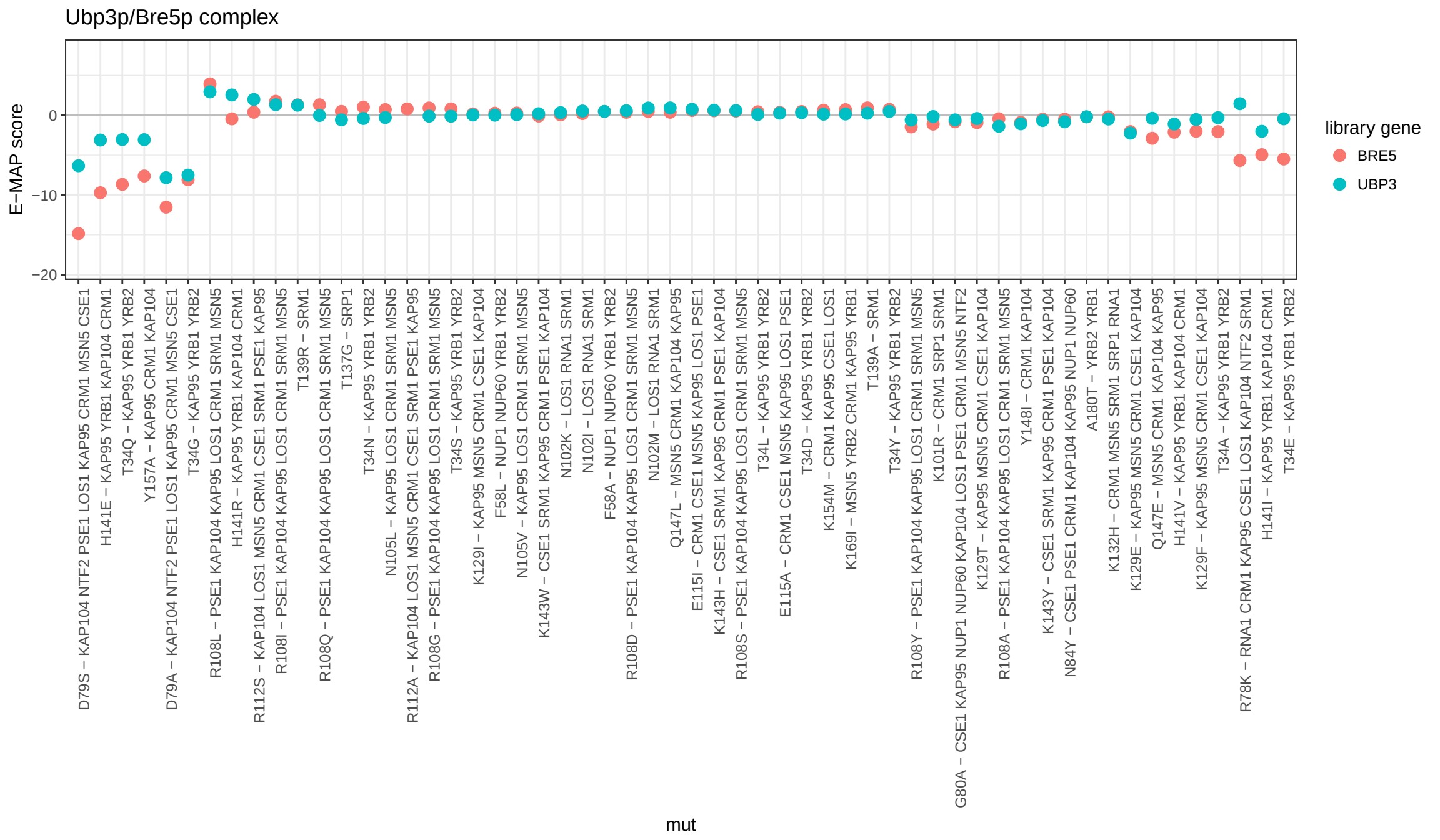

U2 snRNP complex
E−MAP score
0
−10
−20
mut
N102I – LOS1 RNA1 SRM1
T34A – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139A – SRM1
A180T – YRB2 YRB1
T34D – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
F58L – NUP1 NUP60 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
T137G – SRP1
Y148I – CRM1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K101R – CRM1 SRP1 SRM1
Y157A – KAP95 CRM1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147E – MSN5 CRM1 KAP104 KAP95
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – KAP95 YRB2 YRB1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34Y – KAP95 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
T34S – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34E – KAP95 YRB1 YRB2
T34G – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
SMX2
SME1
SMD3
SMD2
SMD1
SMB1
RSE1
PRP9
PRP21
PRP11
MSL1
HSH49
HSH155
CUS1
CUS2

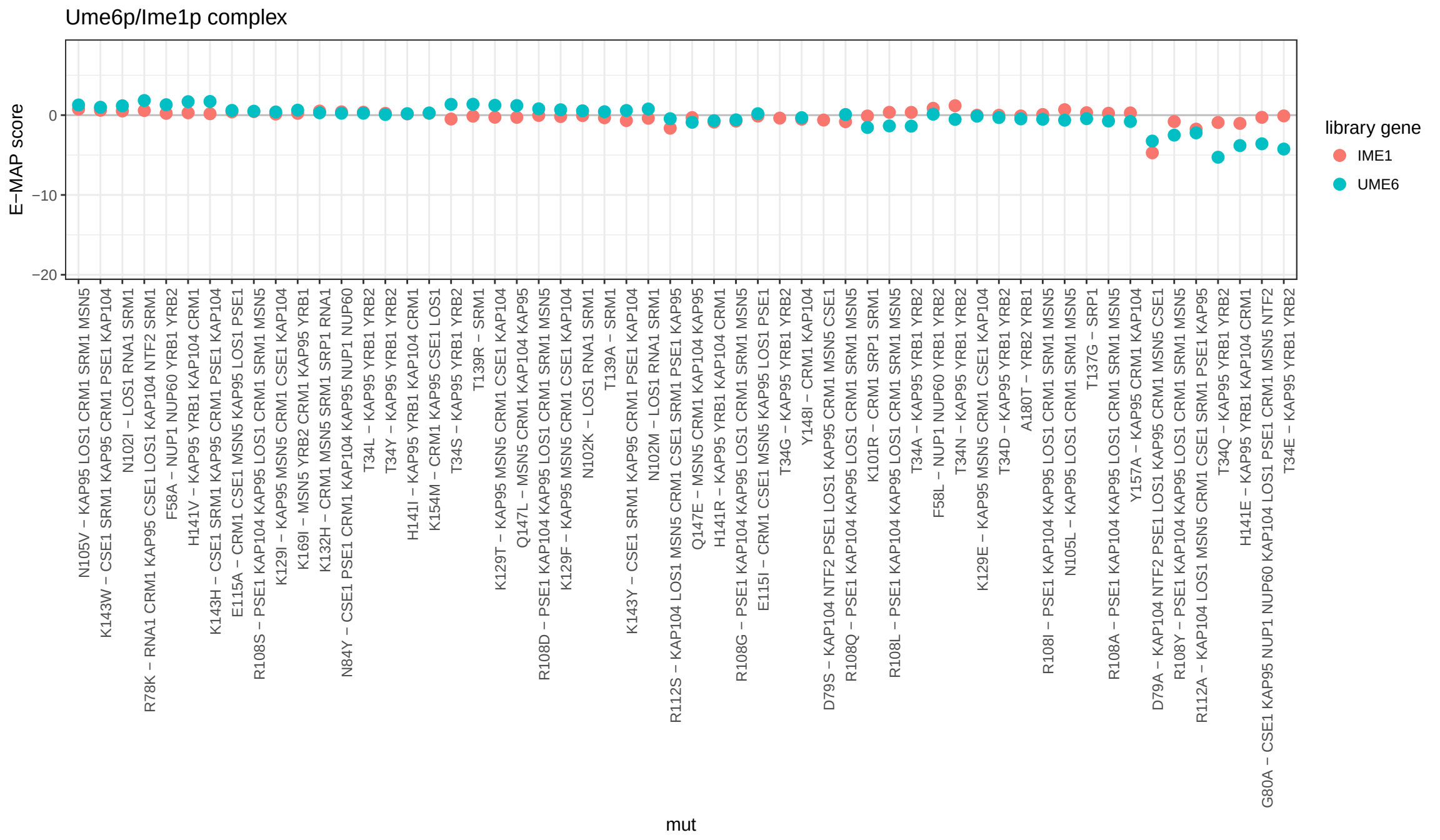

U4/U6 x U5 tri−snRNP complex
E−MAP score
0
−10
−20
mut
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34N – KAP95 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
T137G – SRP1
T34S – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
Y157A – KAP95 CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – KAP95 YRB2 YRB1
F58L – NUP1 NUP60 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
N102I – LOS1 RNA1 SRM1
T139R – SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T34E – KAP95 YRB1 YRB2
SPP381
SNU23
SNU13
SNU114
SMX3
SMX2
SME1
SMD3
SMD2
SMD1
SMB1
PRP8
PRP6
PRP38
PRP31
PRP3
PRP18
LSM8
LSM5
LSM4
LSM3
LSM2
BRR2
DIB1
LSM6
SNU66

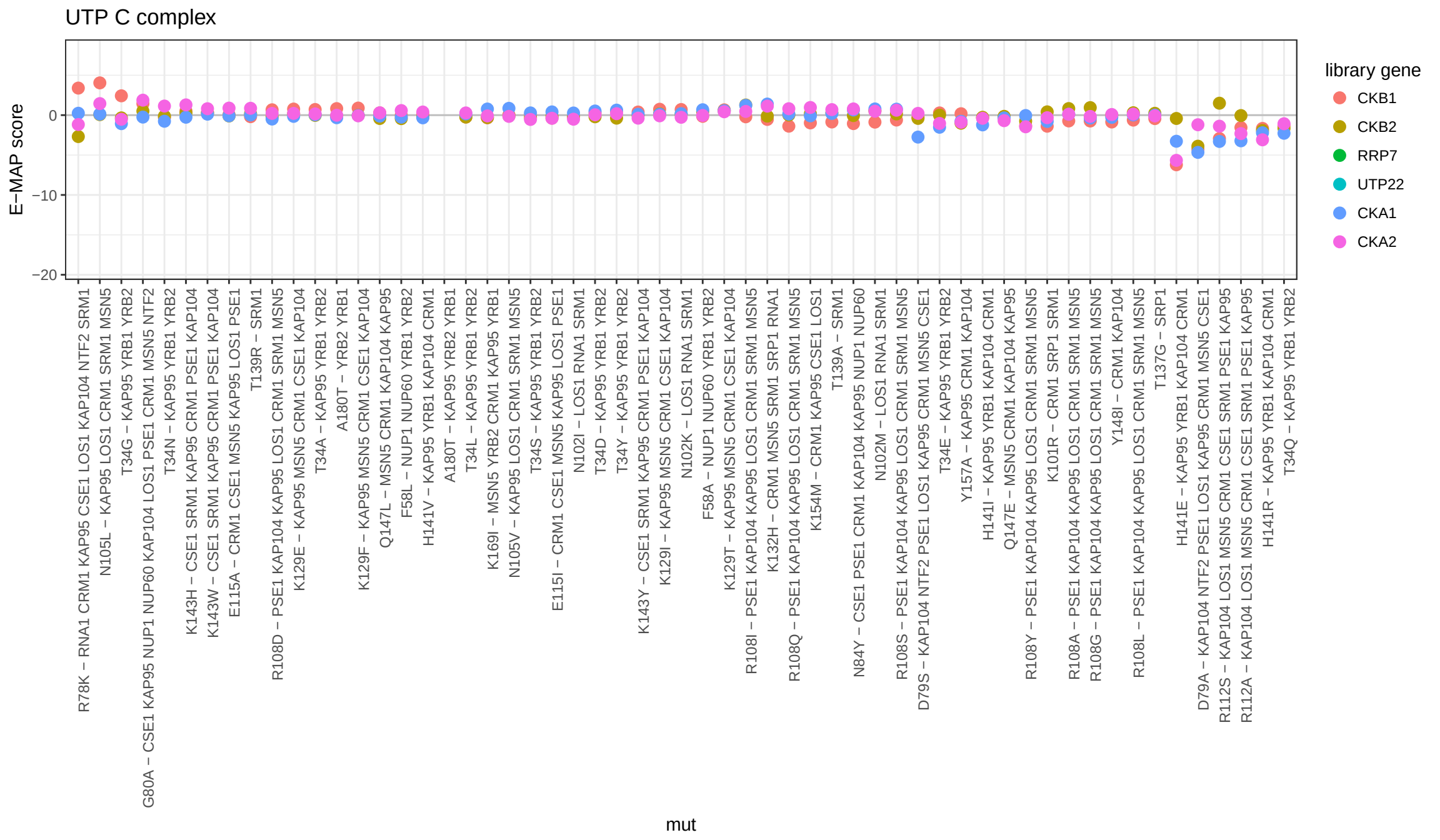

U6 snRNP complex
E−MAP score
0
−10
−20
library gene
LSM6
LSM7
PRP24
LSM8
LSM5
LSM4
LSM2
LSM3
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N102M – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
T139A – SRM1
A180T – KAP95 YRB2 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
T34S – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Q147L – MSN5 CRM1 KAP104 KAP95
T137G – SRP1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34N – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102I – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K101R – CRM1 SRP1 SRM1
Y148I – CRM1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T34G – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
Q147E – MSN5 CRM1 KAP104 KAP95
T34Q – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
H141V – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
T34A – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34D – KAP95 YRB1 YRB2
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T139R – SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34L – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
mut

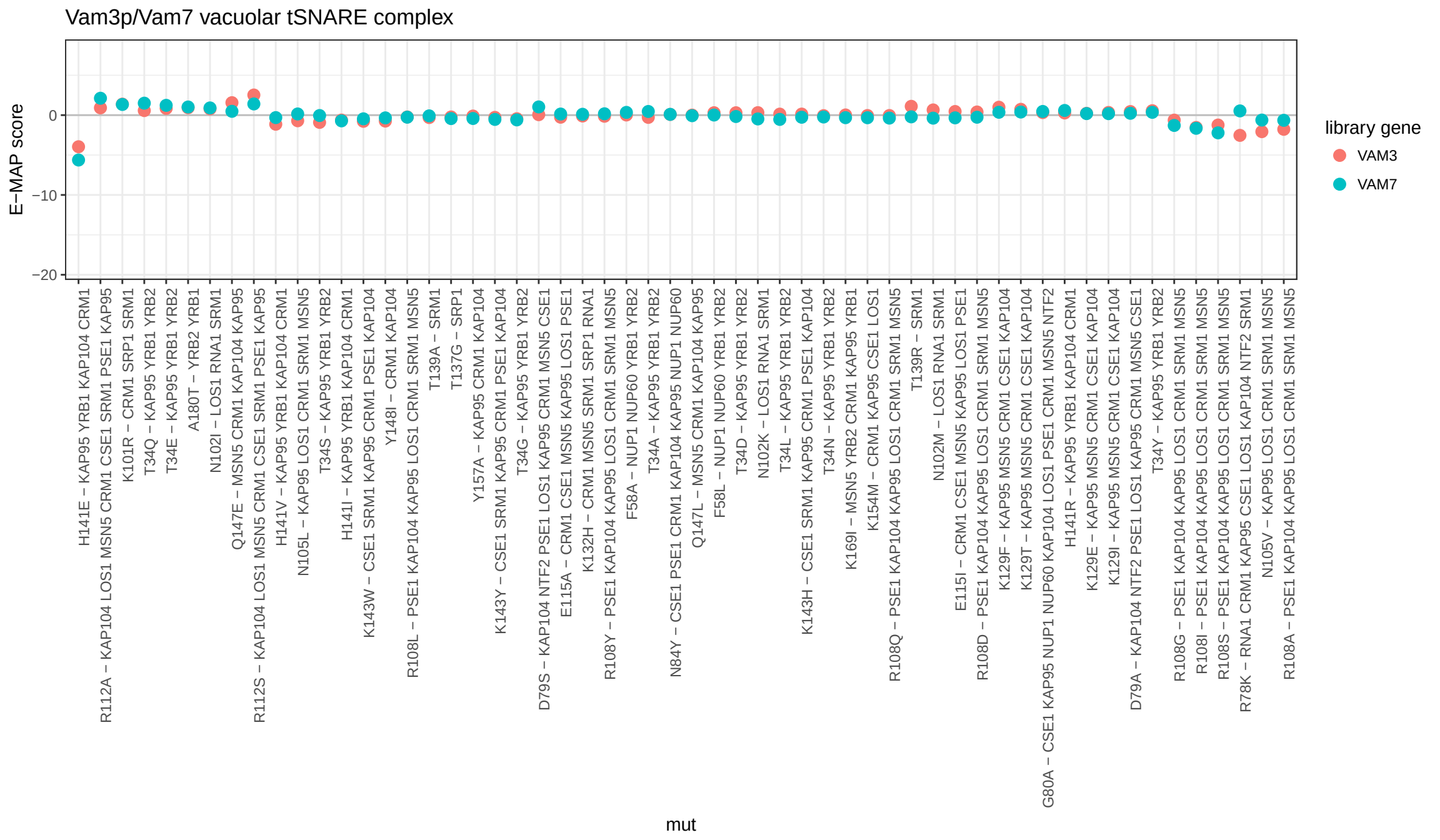

ubiquitin conjugating enzyme complex
E−MAP score
0
−10
−20
mut
K101R – CRM1 SRP1 SRM1
T34G – KAP95 YRB1 YRB2
T139R – SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102M – LOS1 RNA1 SRM1
T34N – KAP95 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34S – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T137G – SRP1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34Y – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
N102I – LOS1 RNA1 SRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
Y148I – CRM1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
A180T – YRB2 YRB1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
H141I – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
H141R – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
library gene
MMS2
UBC13

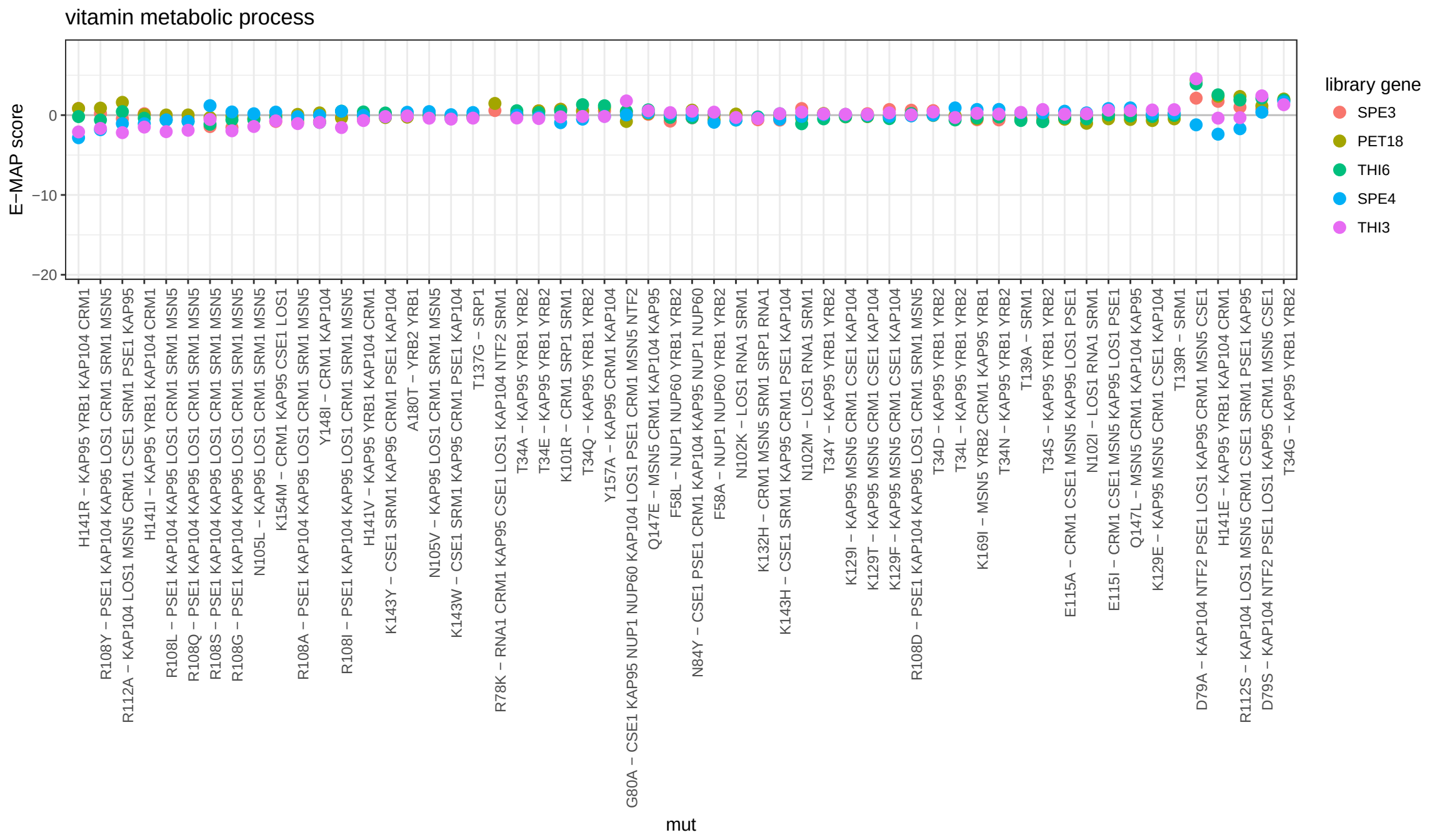

ubiquitin ligase ERAD−L complex
E−MAP score
0
−10
−20
mut
library gene
YOS9
DER1
USA1
HRD1
HRD3
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
K101R – CRM1 SRP1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
T34Q – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
T139A – SRM1
H141I – KAP95 YRB1 KAP104 CRM1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34D – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141V – KAP95 YRB1 KAP104 CRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
A180T – YRB2 YRB1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
T34N – KAP95 YRB1 YRB2
N102I – LOS1 RNA1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K154M – CRM1 KAP95 CSE1 LOS1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34Y – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34E – KAP95 YRB1 YRB2
N102M – LOS1 RNA1 SRM1
Y157A – KAP95 CRM1 KAP104
T137G – SRP1
T139R – SRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
A180T – KAP95 YRB2 YRB1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58L – NUP1 NUP60 YRB1 YRB2
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34G – KAP95 YRB1 YRB2
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1

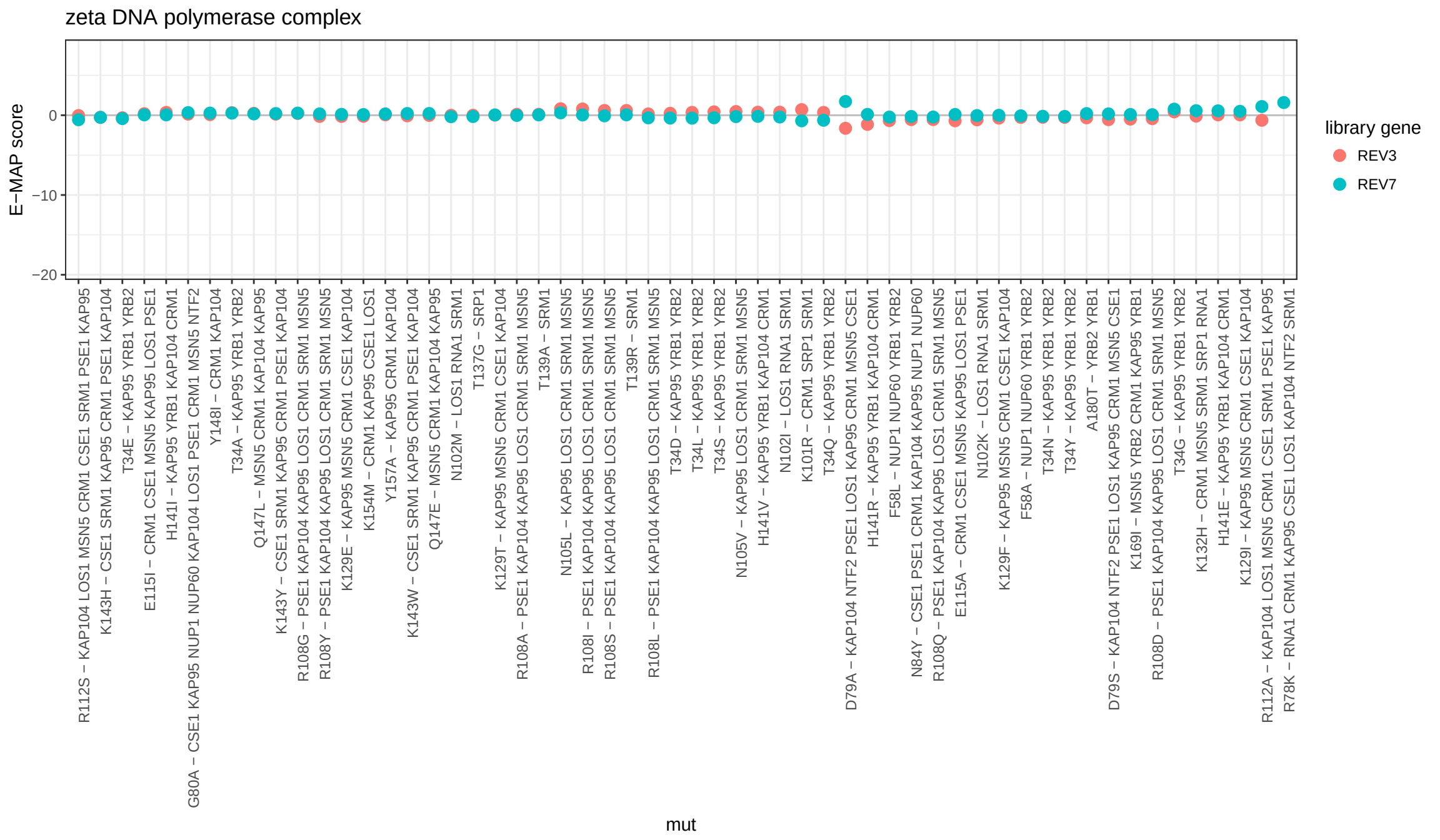

Ubp3p/Bre5p complex
E−MAP score
0
−10
−20
library gene
BRE5
UBP3
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141R – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
T34N – KAP95 YRB1 YRB2
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
F58L – NUP1 NUP60 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102K – LOS1 RNA1 SRM1
N102I – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N102M – LOS1 RNA1 SRM1
Q147L – MSN5 CRM1 KAP104 KAP95
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34L – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34D – KAP95 YRB1 YRB2
K154M – CRM1 KAP95 CSE1 LOS1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T139A – SRM1
T34Y – KAP95 YRB1 YRB2
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
A180T – YRB2 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
H141I – KAP95 YRB1 KAP104 CRM1
T34E – KAP95 YRB1 YRB2
mut


Ume6p/Ime1p complex
E−MAP score
0
−10
−20
library gene
IME1
UME6
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102I – LOS1 RNA1 SRM1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
T34L – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K154M – CRM1 KAP95 CSE1 LOS1
T34S – KAP95 YRB1 YRB2
T139R – SRM1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
T139A – SRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
Q147E – MSN5 CRM1 KAP104 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T34G – KAP95 YRB1 YRB2
Y148I – CRM1 KAP104
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34A – KAP95 YRB1 YRB2
F58L – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34D – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y157A – KAP95 CRM1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
T34Q – KAP95 YRB1 YRB2
H141E – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34E – KAP95 YRB1 YRB2
mut


UTP C complex
E−MAP score
0
−10
−20
mut
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
T34N – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
T139R – SRM1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T34A – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
H141V – KAP95 YRB1 KAP104 CRM1
A180T – KAP95 YRB2 YRB1
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
T34D – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
N102K – LOS1 RNA1 SRM1
F58A – NUP1 NUP60 YRB1 YRB2
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
T139A – SRM1
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
N102M – LOS1 RNA1 SRM1
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34E – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
H141I – KAP95 YRB1 KAP104 CRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K101R – CRM1 SRP1 SRM1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T137G – SRP1
H141E – KAP95 YRB1 KAP104 CRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141R – KAP95 YRB1 KAP104 CRM1
T34Q – KAP95 YRB1 YRB2
library gene
CKB1
CKB2
RRP7
UTP22
CKA1
CKA2


Vam3p/Vam7 vacuolar tSNARE complex
E−MAP score
0
−10
−20
mut
library gene
VAM3
VAM7
H141E – KAP95 YRB1 KAP104 CRM1
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
N102I – LOS1 RNA1 SRM1
Q147E – MSN5 CRM1 KAP104 KAP95
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141V – KAP95 YRB1 KAP104 CRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
T34S – KAP95 YRB1 YRB2
H141I – KAP95 YRB1 KAP104 CRM1
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Y148I – CRM1 KAP104
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
T137G – SRP1
Y157A – KAP95 CRM1 KAP104
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34G – KAP95 YRB1 YRB2
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
F58A – NUP1 NUP60 YRB1 YRB2
T34A – KAP95 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
Q147L – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
T34D – KAP95 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
T34L – KAP95 YRB1 YRB2
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34N – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
K154M – CRM1 KAP95 CSE1 LOS1
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
N102M – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
H141R – KAP95 YRB1 KAP104 CRM1
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34Y – KAP95 YRB1 YRB2
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5


vitamin metabolic process
E−MAP score
0
−10
−20
library gene
SPE3
PET18
THI6
SPE4
THI3
H141R – KAP95 YRB1 KAP104 CRM1
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
H141I – KAP95 YRB1 KAP104 CRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
K154M – CRM1 KAP95 CSE1 LOS1
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
Y148I – CRM1 KAP104
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
A180T – YRB2 YRB1
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T137G – SRP1
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
T34A – KAP95 YRB1 YRB2
T34E – KAP95 YRB1 YRB2
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
Y157A – KAP95 CRM1 KAP104
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Q147E – MSN5 CRM1 KAP104 KAP95
F58L – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
F58A – NUP1 NUP60 YRB1 YRB2
N102K – LOS1 RNA1 SRM1
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
N102M – LOS1 RNA1 SRM1
T34Y – KAP95 YRB1 YRB2
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
T34N – KAP95 YRB1 YRB2
T139A – SRM1
T34S – KAP95 YRB1 YRB2
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102I – LOS1 RNA1 SRM1
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
Q147L – MSN5 CRM1 KAP104 KAP95
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
T139R – SRM1
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141E – KAP95 YRB1 KAP104 CRM1
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
T34G – KAP95 YRB1 YRB2
mut


zeta DNA polymerase complex
E−MAP score
0
−10
−20
library gene
REV3
REV7
R112S – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
K143H – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
T34E – KAP95 YRB1 YRB2
E115I – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
H141I – KAP95 YRB1 KAP104 CRM1
G80A – CSE1 KAP95 NUP1 NUP60 KAP104 LOS1 PSE1 CRM1 MSN5 NTF2
Y148I – CRM1 KAP104
T34A – KAP95 YRB1 YRB2
Q147L – MSN5 CRM1 KAP104 KAP95
K143Y – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
R108G – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108Y – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
K129E – KAP95 MSN5 CRM1 CSE1 KAP104
K154M – CRM1 KAP95 CSE1 LOS1
Y157A – KAP95 CRM1 KAP104
K143W – CSE1 SRM1 KAP95 CRM1 PSE1 KAP104
Q147E – MSN5 CRM1 KAP104 KAP95
N102M – LOS1 RNA1 SRM1
T137G – SRP1
K129T – KAP95 MSN5 CRM1 CSE1 KAP104
R108A – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139A – SRM1
N105L – KAP95 LOS1 CRM1 SRM1 MSN5
R108I – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
R108S – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T139R – SRM1
R108L – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34D – KAP95 YRB1 YRB2
T34L – KAP95 YRB1 YRB2
T34S – KAP95 YRB1 YRB2
N105V – KAP95 LOS1 CRM1 SRM1 MSN5
H141V – KAP95 YRB1 KAP104 CRM1
N102I – LOS1 RNA1 SRM1
K101R – CRM1 SRP1 SRM1
T34Q – KAP95 YRB1 YRB2
D79A – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
H141R – KAP95 YRB1 KAP104 CRM1
F58L – NUP1 NUP60 YRB1 YRB2
N84Y – CSE1 PSE1 CRM1 KAP104 KAP95 NUP1 NUP60
R108Q – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
E115A – CRM1 CSE1 MSN5 KAP95 LOS1 PSE1
N102K – LOS1 RNA1 SRM1
K129F – KAP95 MSN5 CRM1 CSE1 KAP104
F58A – NUP1 NUP60 YRB1 YRB2
T34N – KAP95 YRB1 YRB2
T34Y – KAP95 YRB1 YRB2
A180T – YRB2 YRB1
D79S – KAP104 NTF2 PSE1 LOS1 KAP95 CRM1 MSN5 CSE1
K169I – MSN5 YRB2 CRM1 KAP95 YRB1
R108D – PSE1 KAP104 KAP95 LOS1 CRM1 SRM1 MSN5
T34G – KAP95 YRB1 YRB2
K132H – CRM1 MSN5 SRM1 SRP1 RNA1
H141E – KAP95 YRB1 KAP104 CRM1
K129I – KAP95 MSN5 CRM1 CSE1 KAP104
R112A – KAP104 LOS1 MSN5 CRM1 CSE1 SRM1 PSE1 KAP95
R78K – RNA1 CRM1 KAP95 CSE1 LOS1 KAP104 NTF2 SRM1
mut