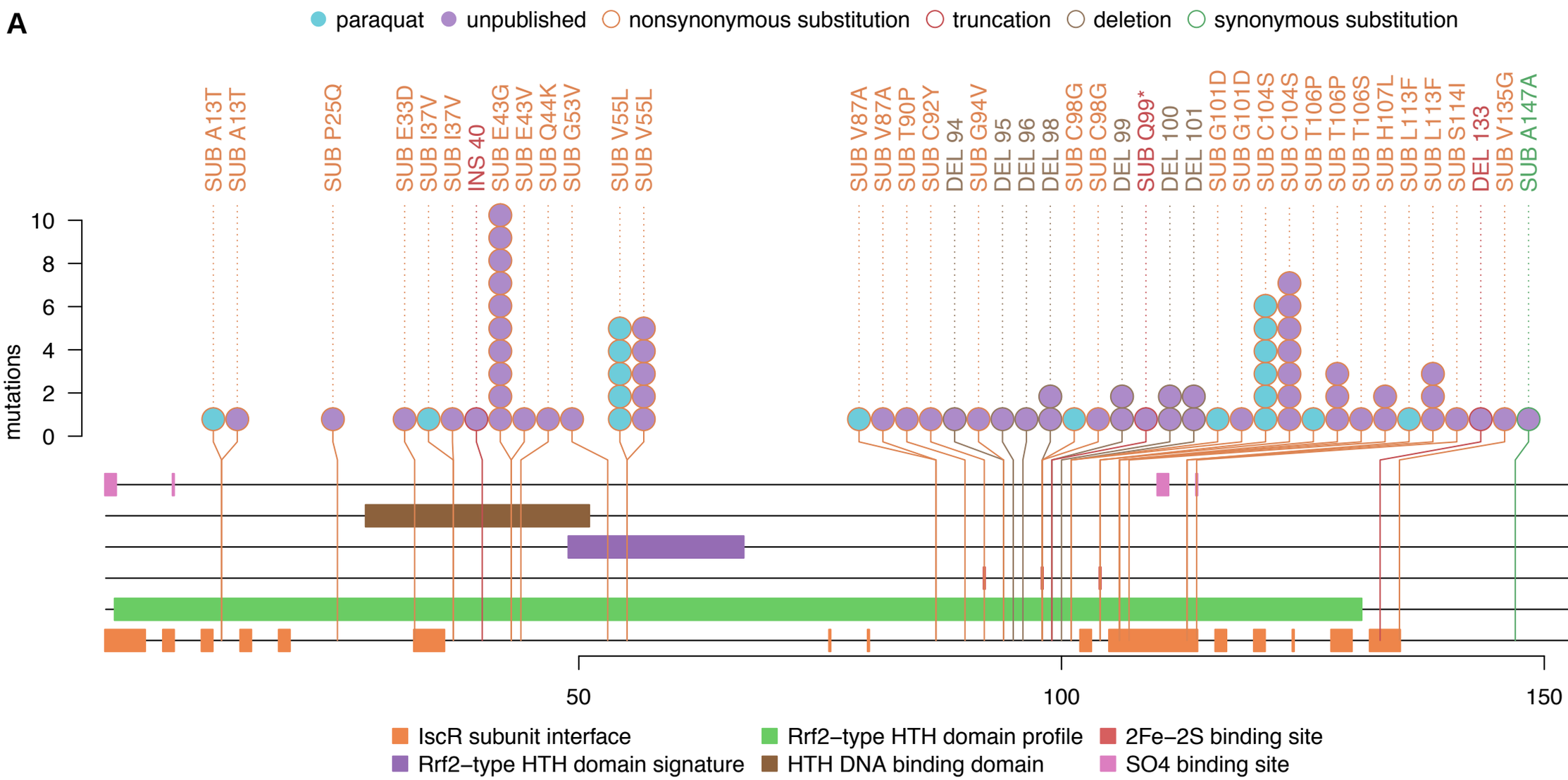
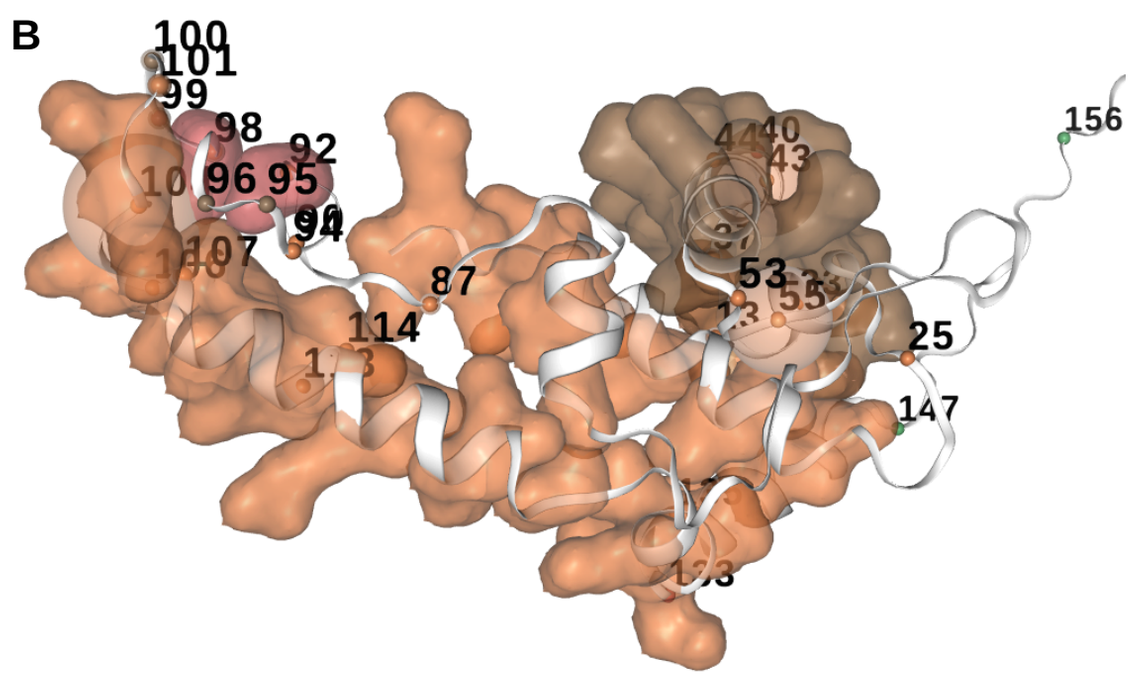
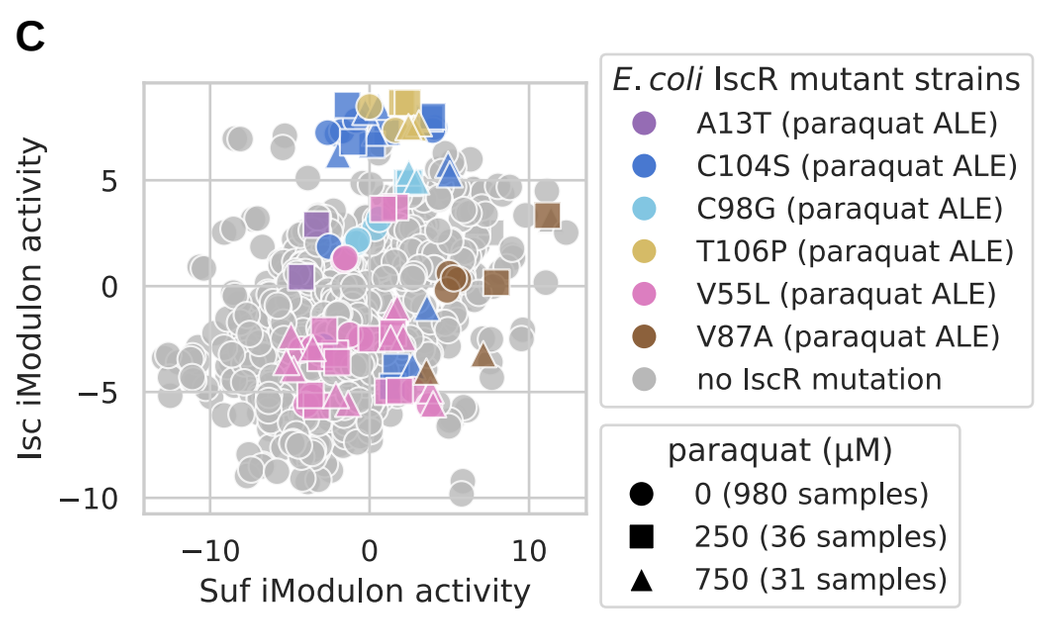

A
paraquat
unpublished
nonsynonymous substitution
truncation
deletion
synonymous substitution
SUB A13T
SUB A13T
SUB P25Q
SUB E33D
SUB I37V
SUB I37V
INS 40
SUB E43G
SUB E43V
SUB Q44K
SUB G53V
SUB V55L
SUB V55L
SUB V87A
SUB V87A
SUB T90P
SUB C92Y
DEL 94
SUB G94V
DEL 95
DEL 96
DEL 98
SUB C98G
SUB C98G
DEL 99
SUB Q99*
DEL 100
DEL 101
SUB G101D
SUB G101D
SUB C104S
SUB C104S
SUB T106P
SUB T106P
SUB T106S
SUB H107L
SUB L113F
SUB L113F
SUB S114I
DEL 133
SUB V135G
SUB A147A
SUB I156I
mutations
10
8
6
4
2
0
50
100
150
IscR subunit interface
Rrf2–type HTH domain signature
Rrf2–type HTH domain profile
HTH DNA binding domain
2Fe–2S binding site
SO4 binding site


B
100
101
99
98
92
96
95
94
107
87
114
53
25
147
156


C
Isc iModulon activity
Suf iModulon activity
5
0
−5
−10
−10
0
10
E. coli IscR mutant strains
A13T (paraquat ALE)
C104S (paraquat ALE)
C98G (paraquat ALE)
T106P (paraquat ALE)
V55L (paraquat ALE)
V87A (paraquat ALE)
no IscR mutation
paraquat (μM)
0 (980 samples)
250 (36 samples)
750 (31 samples)