Bin / Inferred breakpoints

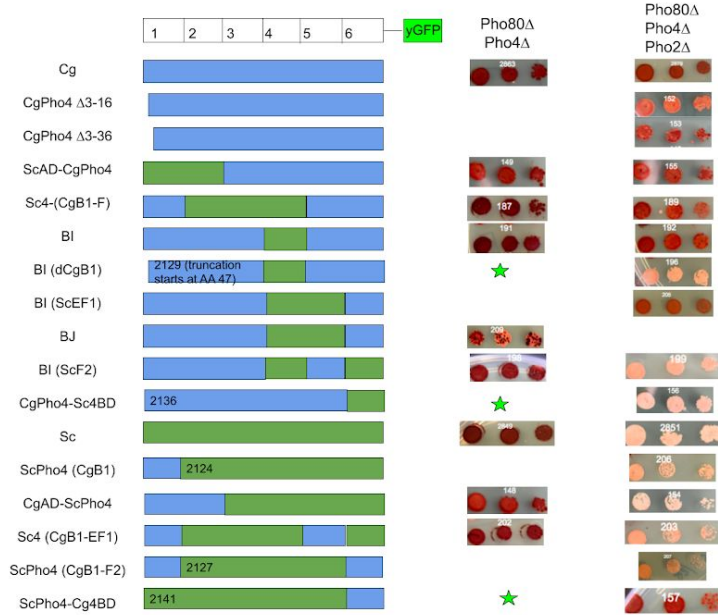|	1: B1	1+2: AD	1+2+3: B	4: E*	5: F1	6: F2
CgPHO4	[1-44]	[1-100]	[1-199]	[200-327]	[328-452]	[453-533]
ScPHO4	[1-42]	[1-99]	[1-128]	[129-204]	[205-236]	[237-312]

* E is inferred and is not consistent with CgEF1

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Scer    1 MGRTTSEGIHGFVDDLEPKSSILDKVGDFIT-VNT-KRHDGREDFNEQ-N   47
Cgla    1 MGEQVEDMDKLYETPIDMQTTIFDQVDNYLHMVNSGLQHDEKEDEHREHE   50

Scer   48 DELNSQE---NHNSSENGNENENEQDSLALDDLDRAFELVEGMDMDWMM-   93
Cgla   51 DAIDGGASLNMHLYNINDTLNGVSTDNGHFDMVDLHFGPTLTTDDDPTKM  100

Scer   94 ----PSHAHHSPATTATIKPRLL----YSPLIHTQSAVPVT--------- 126
Cgla  101 AELQHTTIHHGHLDVNGNRSDSLFSPFDSPLVHDTPSLEARNSIQLTNEG 150

Scer  127 ---------------------------------------------ISP  129
Cgla  151 STSALTTPFLSGKNHYDDHGNSINSQSFNYHNRNSSLSKVSGKFSPISSP 200

Scer  130 NLVATATSTTSANKVTKNKSNS-----------------------SPY  154
Cgla  201 ALTSTNQEQQHWNTSSRRASNSSSRSKRVLPSGNSSVSSTSNKVIKNSPY 250

Scer  155 LNKR--R-------GKPGPDS-ATSLFELPDSVIPT-------------  180
Cgla  251 MNASSRRLQKTISNGNSKRDEWDEFMFSLPESSLANDLTTGNDENMDISL 300

Scer  181 ---PKPKPKPKQYPKVILPSNSTRRVSPVTAKTS-------------   211
Cgla  301 PAGHSPTKEYNSYPKVILPSHAAENESMETDNYERASLLEDSQPDETQNN 350

Scer  212 ----------------SSAEGVVVASESPVIAPHGSSHS---------- 234
Cgla  351 NPQNNNPHSNGSSISPVGKNDSVMLASGSPVLKPQNSSSNILQTPYSSKR 400

Scer      --------------------------------------------------
Cgla  401 VFKSPADISSTEQTADEASNDASNDAKSKDKKQRKPSSSGPNKLKRTNTG 450

Scer  235 RSLSKRRSSGALVD----DDKRESHKHAEQARRNRLAVALHELASLIPAE 280
Cgla  451 GSIGRVRSDSASQNSDYVQRKKEVHKYAEQERRNRLNNALSDLNSLLPQD 500

Scer  281 WKQQNVSAAPSKATTVEAACRYIRHLQQN---VST              312
Cgla  501 WKD--AVTVPSKAITAELACKYIRTLLEELEQYKK              533
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Red letters are inferred break points HB 2018-10-07

CgPho4 {1, 44-45, 100-101*, 199-200, 327-328, 452-453, 533}	ScPho4 {1, 42-43, 99-100*, 204-205, 236-237, 312}
- CgAD* = 1-100 - B1 = 1-44 - B = 1-199 - F = 328-533 - EF1 = 328-452 - F2 = 453-533 - I = 328-533	- ScAD* = 1-99 - E = 129-204 - EF1 = 129-236 - F2 = 237-312

2019-01-18 Update

	1	2	3	4	5	6	yGFP

Pho80Δ Pho4Δ | Pho80Δ Pho4Δ Pho2Δ

- Cg
- CgPho4 Δ3-16
- CgPho4 Δ3-36
- ScAD-CgPho4
- Sc4-(CgB1-F)
- BI
- BI (dCgB1) — 2129 (truncation starts at AA 47)
- BI (ScEF1)
- BJ
- BI (ScF2)
- CgPho4-Sc4BD — 2136
- Sc
- ScPho4 (CgB1) — 2124
- CgAD-ScPho4
- Sc4 (CgB1-EF1)
- ScPho4 (CgB1-F2) — 2127
- ScPho4-Cg4BD — 2141

Pho4 Chimeric Composition	Pho80Δ Pho4Δ Strain ID	Pho80Δ Pho4Δ Pho2Δ Strain ID
Cg	2863	2879
CgPho4 Δ3-16	Missing	152
CgPho4 Δ3-36	Missing	153
ScAD-CgPho4	149	155
Sc4-(CgB1-F)	187	189
BI	191	192
BI (dCgB1)	Missing	196
BI (ScEF1)	Missing	205
BJ	209	Missing
BI (ScF2)	198	199
CgPho4-Sc4BD	Missing	156
Sc	2849	2851
ScPho4 (CgB1)	Missing	206
CgAD-ScPho4	148	154
Sc4 (CgB1-EF1)	202	203
ScPho4 (CgB1-F2)	Missing	207
ScPho4-Cg4BD	Missing	157

Chimeric Layout

1	2	3	4	5	6	yGFP

1: B1   1+2: AD   1+2+3: B   4: E   5: F1   6: F2

2019-08-09 Update

	1	2	3	4	5	6	yGFP

Pho80Δ Pho4Δ | Pho80Δ Pho4Δ Pho2Δ

- Cg — +++ | +++
- ScAD-CgPho4 — ++ | ++
- Sc4-(CgB1-F) — +++ | +
- BI — +++ | ++
- BI (dCgB1) — - | +
- BI (ScEF1) — ⊗ | +++
- BJ — +++ | ⊗
- BI (ScF2) — ++ | -
- CgPho4-Sc4BD — - | -
- Sc — +++ | +
- ScPho4 (CgB1) — ⊗ | +
- CgAD-ScPho4 — ++ | +
- Sc4 (CgB1-EF1) — +++ | -
- ScPho4 (CgB1-F2) — ⊗ | -
- ScPho4-Cg4BD — +++ | +
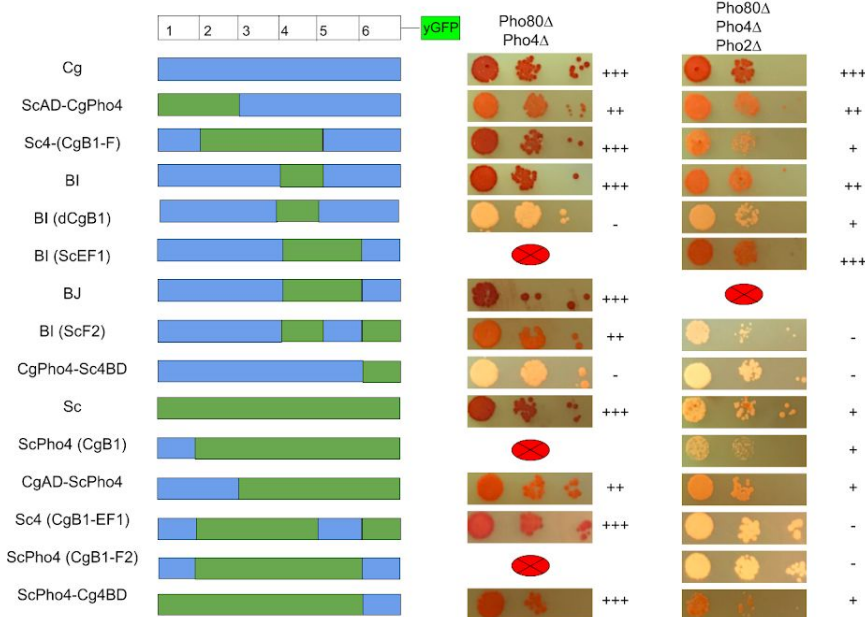
Pho4 Chimeric Composition	Pho80Δ Pho4Δ Strain ID	Pho80Δ Pho4Δ Pho2Δ Strain ID
Cg	163	173
ScAD-CgPho4	187	191
Sc4-(CgB1-F)	194	196
BI	198	199
BI (dCgB1)	232	203
BI (ScEF1)	Missing	212
BJ	216	Missing
BI (ScF2)	205	206
CgPho4-Sc4BD	224	192
Sc	156	158
ScPho4 (CgB1)	Missing (EB 2124)	213
CgAD-ScPho4	186	190
Sc4 (CgB1-EF1)	209	210
ScPho4 (CgB1-F2)	Missing (EB 2127)	214
ScPho4-Cg4BD	244	193

Chimeric Layout

1	2	3	4	5	6	yGFP

1: B1   1+2: AD   1+2+3: B   4: E   5: F1   6: F2