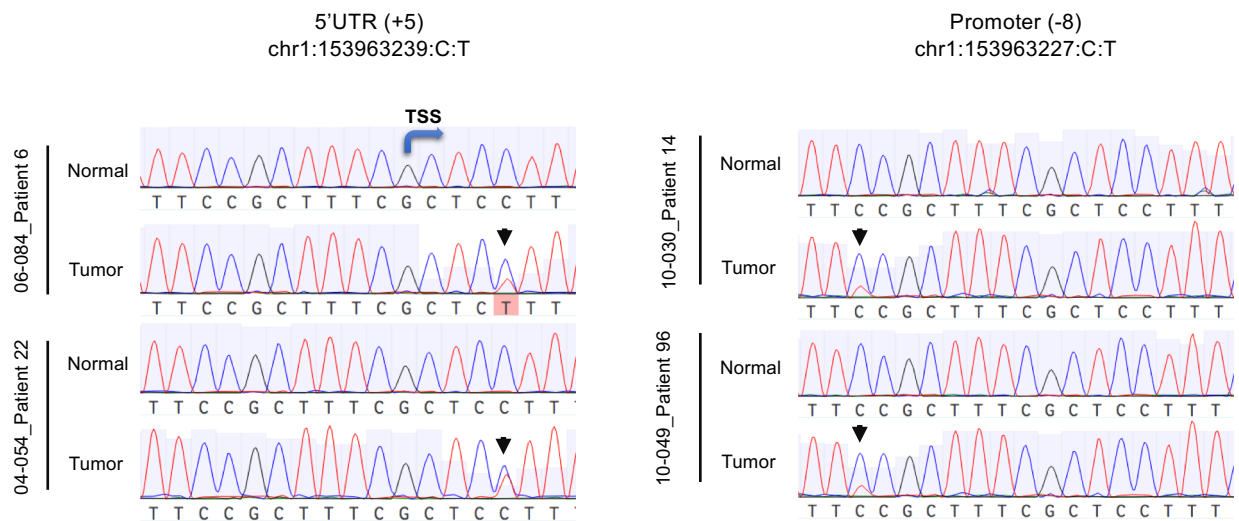


Supplementary Figure 1

A

CHR:POS:MUT	Location	TGS NYU (%)	Hayward et al. (%)	Dutton-Regester et al. (%)	TCGA SKCM WGS (%)
1:153963239:C:T	UTR5	10.11	10.93	9.61	5.71
1:153963227:C:T	upstream	4.49	7.10	N/A	5.71
1:153963207:C:T	upstream	2.25	1.64	N/A	1.43
1:153963128:C:T	upstream	1.12	N/A	N/A	N/A
1:153963178:G:A	upstream	1.12	N/A	N/A	N/A
1:153963222:G:A	upstream	1.12	0.00	N/A	1.43
1:153963234:C:T	UTR5	1.12	2.19	N/A	N/A
1:153963254:G:A	UTR5	1.12	N/A	N/A	N/A
1:153963724:G:A	intronic	1.12	N/A	N/A	N/A

B



Supplementary Figure 2

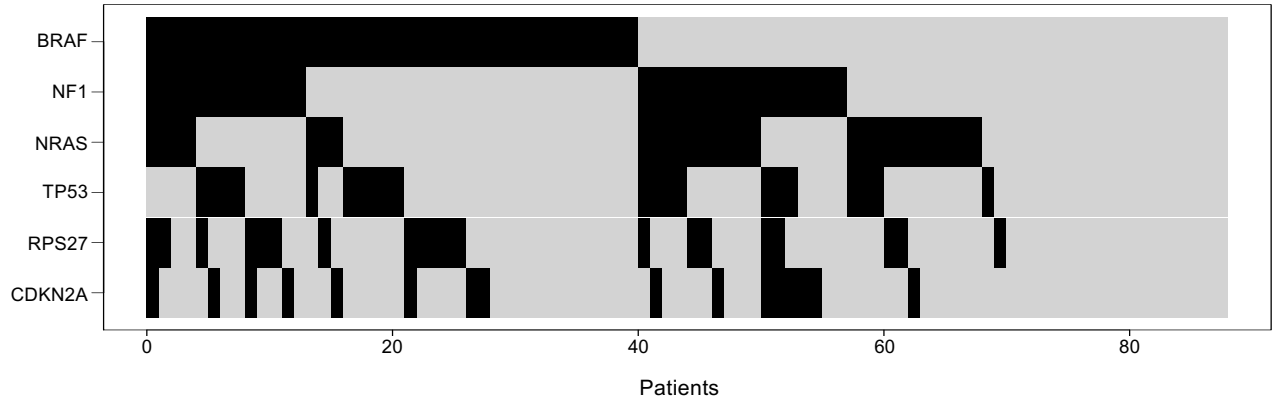
A

q-val p-val	RPS27	BRAF	NRAS	NF1	TP53	CDKN2A
RPS27		8.34E-01	8.81E-01	8.26E-01	9.77E-01	8.61E-01
BRAF	7.31E-01		9.99E-01	9.75E-01	9.34E-01	9.05E-01
NRAS	8.53E-01	9.99E-01		8.26E-01	9.02E-01	9.48E-01
NF1	5.34E-01	9.81E-01	6.10E-01		8.26E-01	8.26E-01
TP53	9.81E-01	9.37E-01	8.86E-01	6.02E-01		8.76E-01
CDKN2A	8.15E-01	8.96E-01	9.54E-01	2.52E-01	8.44E-01	

B

q-val p-val	RPS27	BRAF	NRAS	NF1	TP53	CDKN2A
RPS27		9.06E-01	9.06E-01	9.06E-01	9.06E-01	9.06E-01
BRAF	3.95E-01		6.62E-01	9.06E-01	9.06E-01	9.06E-01
NRAS	2.59E-01	2.33E-04		9.06E-01	9.06E-01	9.06E-01
NF1	6.12E-01	4.01E-02	5.23E-01		9.06E-01	9.06E-01
TP53	5.71E-02	1.21 E-01	2.10E-01	5.44E-01		9.06E-01
CDKN2A	3.41E-01	1.93 E-01	1.11E-01	8.53E-01	2.99E-01	

C



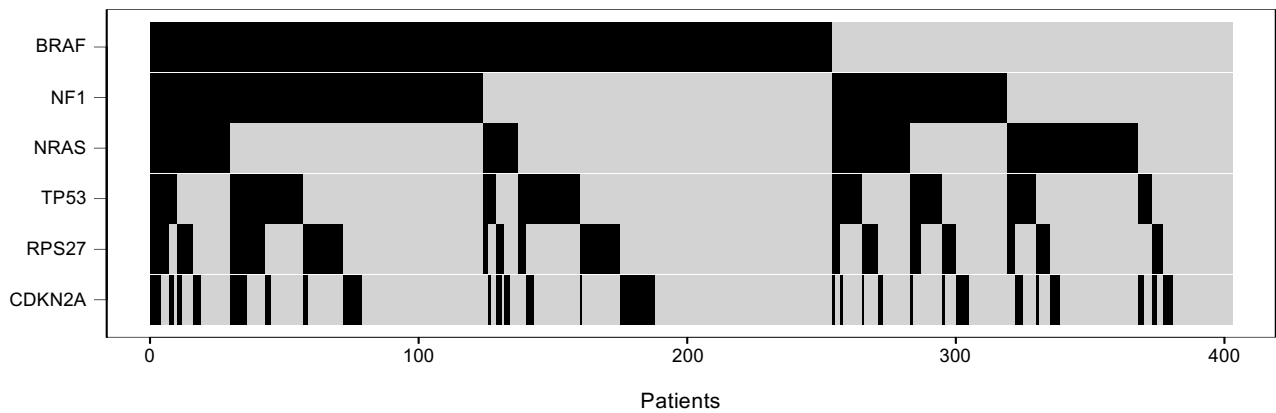
D

q-val p-val	RPS27	BRAF	NRAS	NF1	TP53	CDKN2A
RPS27		9.99E-01	9.99E-01	9.99E-01	9.89E-01	9.99E-01
BRAF	9.93E-01		9.99E-01	9.99E-01	9.99E-01	9.99E-01
NRAS	9.69E-01	9.99E-01		9.99E-01	9.99E-01	9.99E-01
NF1	8.51E-01	9.85E-01	9.95E-01		9.89E-01	9.99E-01
TP53	7.51E-01	9.40E-01	9.43E-01	6.20E-01		9.99E-01
CDKN2A	9.29E-01	9.76E-01	9.47E-01	9.76E-01	9.20E-01	

E

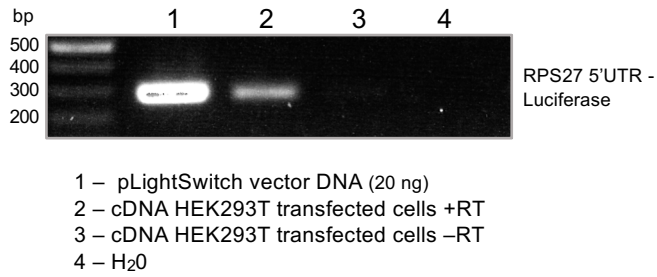
q-val p-val	RPS27	BRAF	NRAS	NF1	TP53	CDKN2A
RPS27		8.16E-01	8.96E-01	8.96E-01	8.96E-01	8.96E-01
BRAF	1.09E-02		4.58E-10	8.23E-01	8.96E-01	8.70E-01
NRAS	4.65E-02	1.84E-13		8.16E-01	8.96E-01	8.96E-01
NF1	1.89E-01	2.01E-02	7.29E-03		8.96E-01	8.79E-01
TP53	3.15E-01	7.98E-02	8.27E-02	4.42E-01		8.96E-01
CDKN2A	1.06E-01	3.46E-02	7.96E-02	3.56E-02	1.20E-01	

F



Supplementary Figure 3

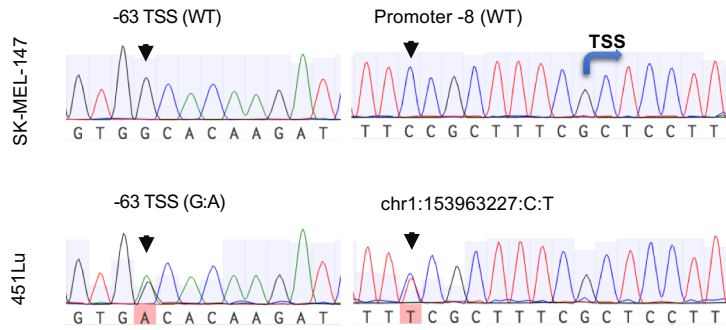
A



B

Melanoma cell lines	5'UTR	Promoter (-8)	RPS27 other mutations
SK-MEL-2	WT	WT	WT
SK-MEL-5	WT	WT	WT
SK-MEL-19	WT	WT	WT
SK-MEL-28	WT	WT	WT
SK-MEL-29	WT	WT	WT
SK-MEL-85	WT	WT	WT
SK-MEL-94	WT	WT	WT
SK-MEL-100	WT	WT	WT
SK-MEL-103	WT	WT	WT
SK-MEL-147	WT	WT	WT
SK-MEL-152	WT	WT	WT
SK-MEL-173	WT	WT	WT
SK-MEL-187	WT	WT	WT
SK-MEL-192	WT	WT	WT
SK-MEL-197	WT	WT	WT
SK-MEL-239	WT	WT	WT
MEWO	WT	WT	WT
451LU	WT	MUTATED	-63 TSS
A375	WT	WT	WT
501Mel	WT	WT	WT
WM 1361A	WT	WT	WT
WM 39	WT	WT	WT
WM 278	WT	WT	WT
WM 3211	WT	WT	WT
WM 793b	WT	WT	WT

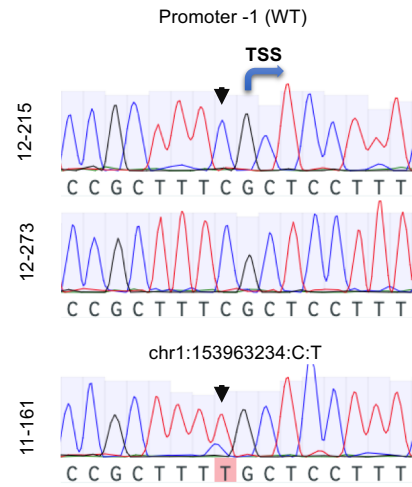
C



D

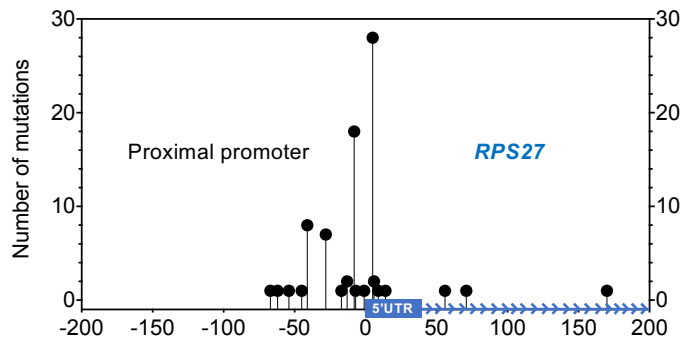
Melanoma short-term cultures	5'UTR	Promoter (-8)	RPS27 other mutations
07-013	WT	WT	WT
09-162	WT	WT	WT
12-126	WT	WT	WT
11-001	WT	WT	WT
11-103	WT	WT	WT
12-126	WT	WT	WT
12-273	WT	WT	WT
10-040	WT	WT	WT
12-019	WT	WT	WT
12-215	WT	WT	WT
09-203	WT	WT	WT
10-230	WT	WT	WT
11-161	WT	WT	-1 TSS

E

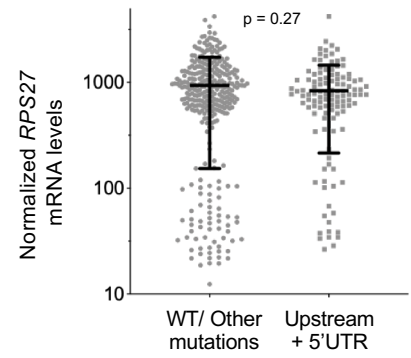


Supplementary Figure 4

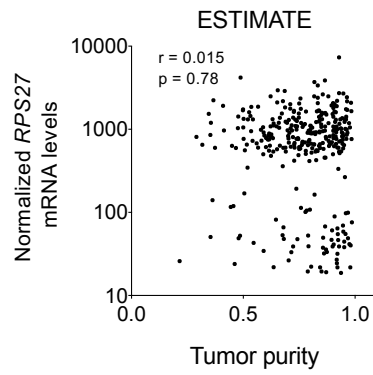
A



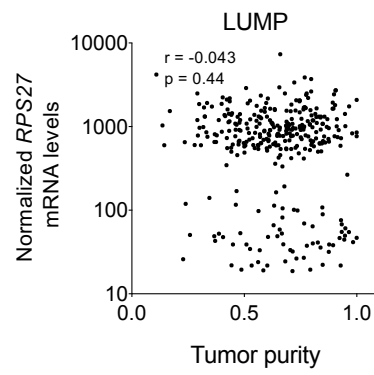
B



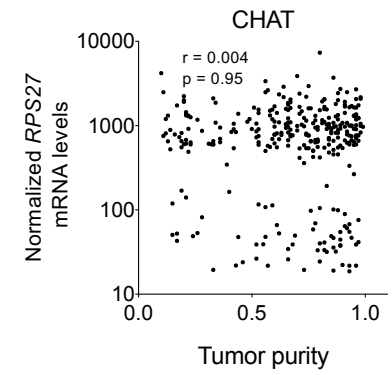
C



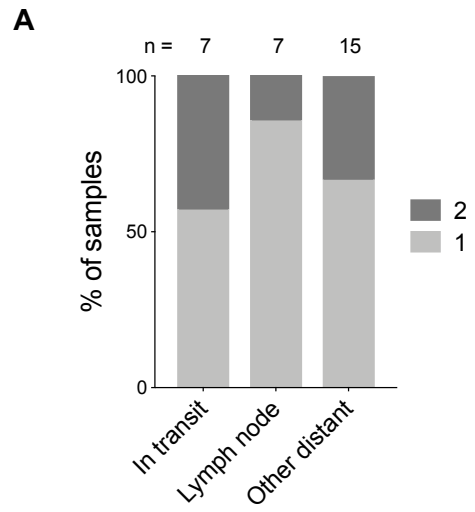
D



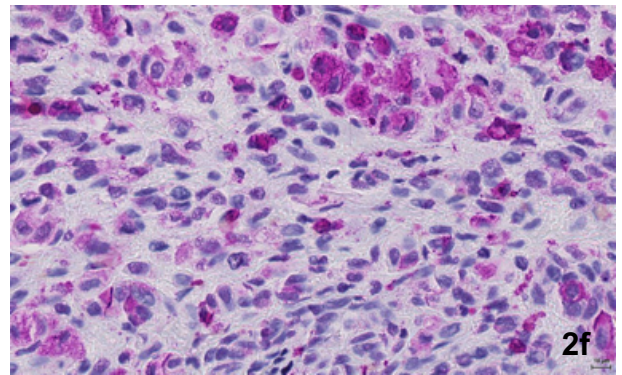
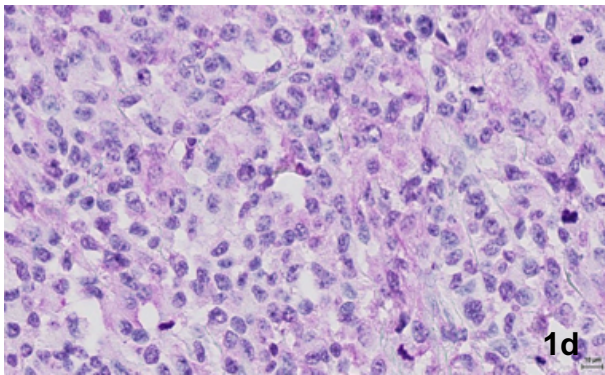
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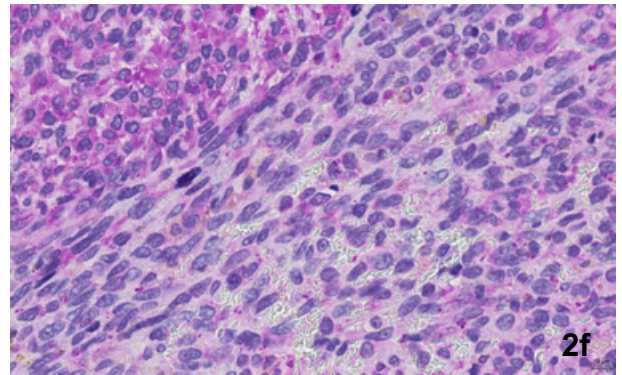
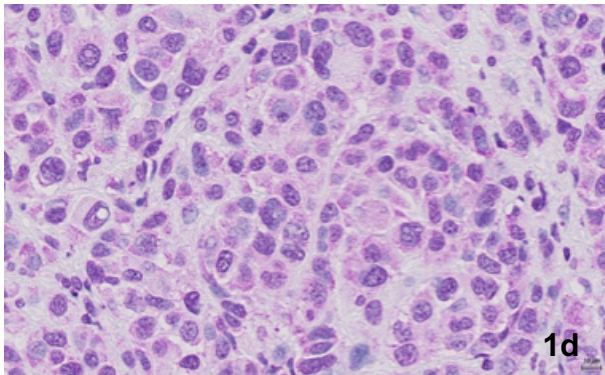
Supplementary Figure 5



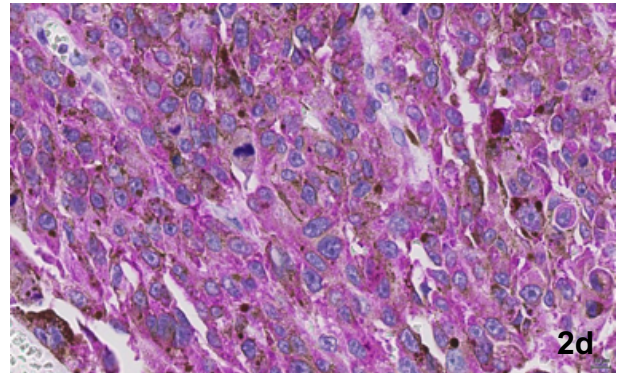
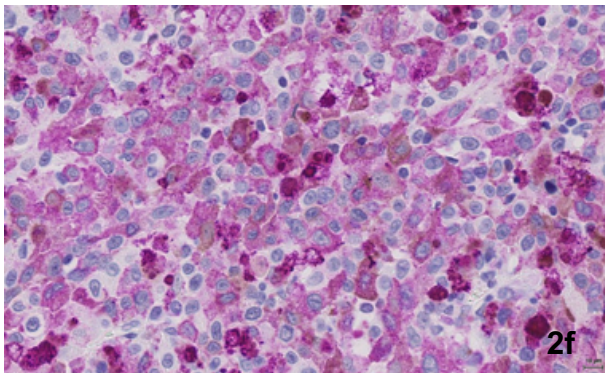
B



C

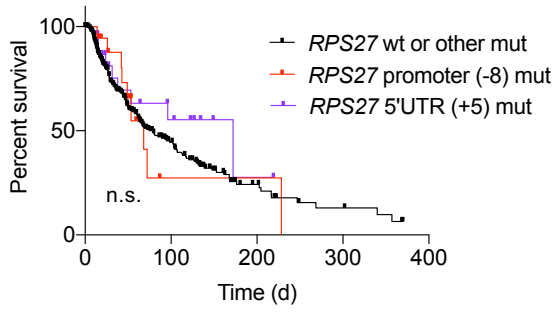


D

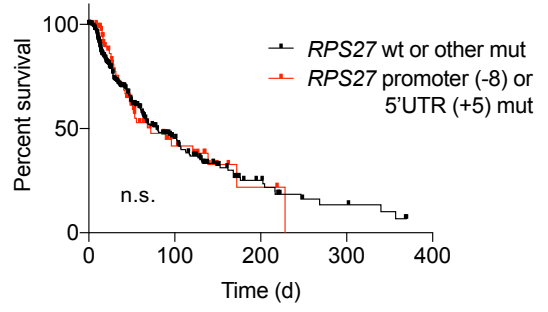


Supplementary Figure 6

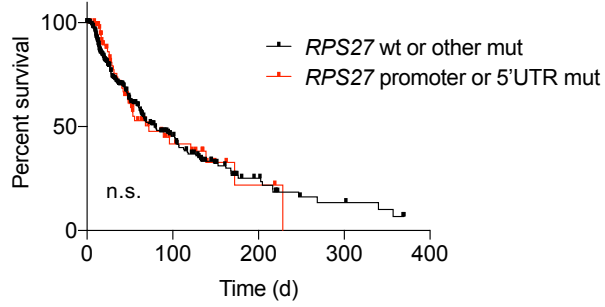
A



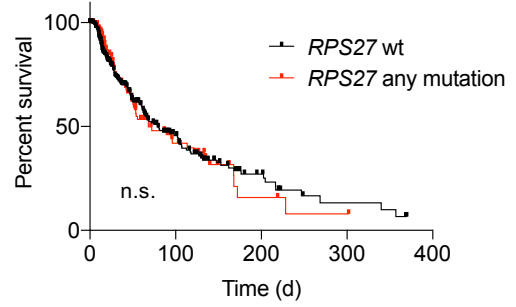
B



C

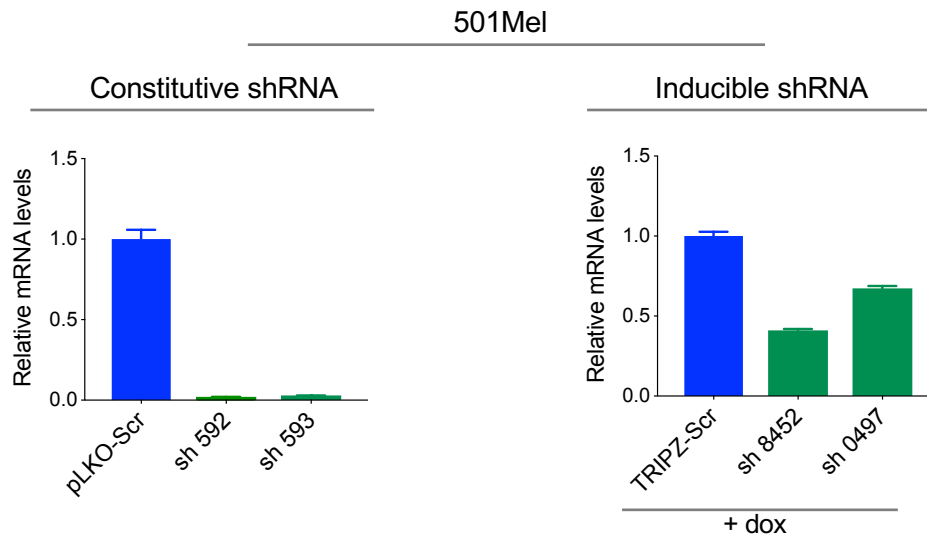


D

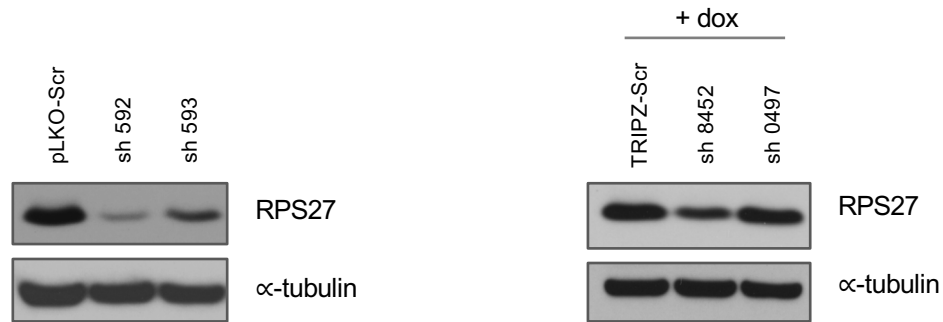


Supplementary Figure 7

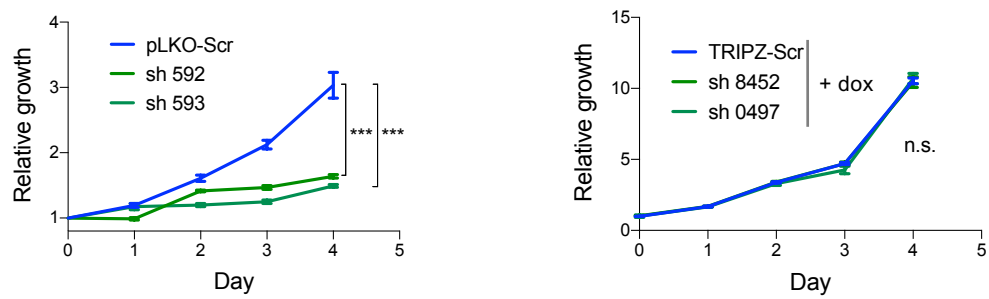
A



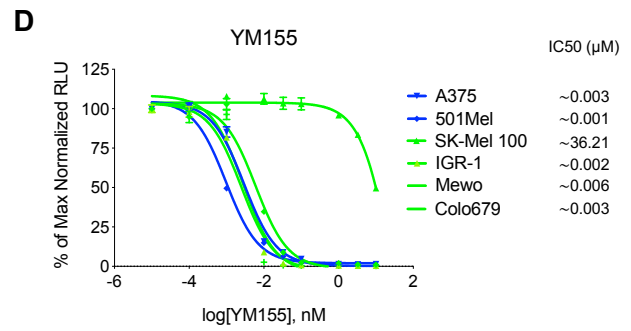
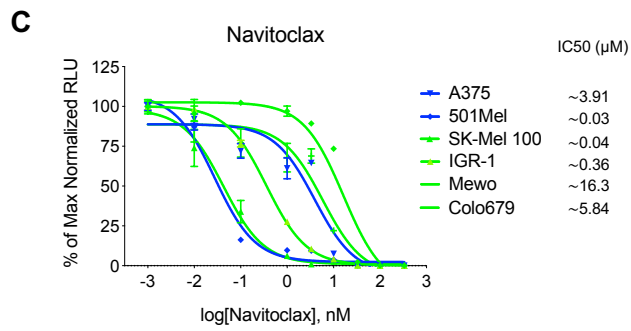
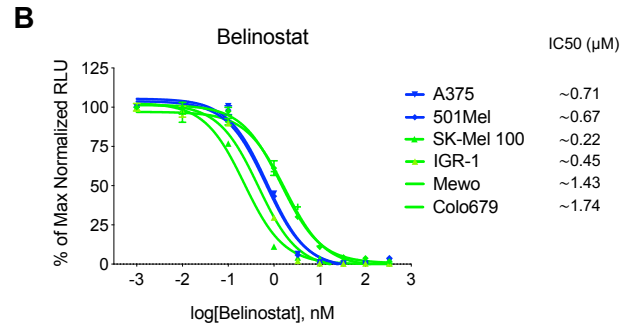
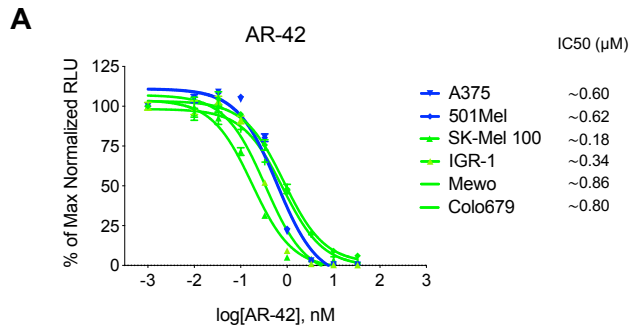
B



C

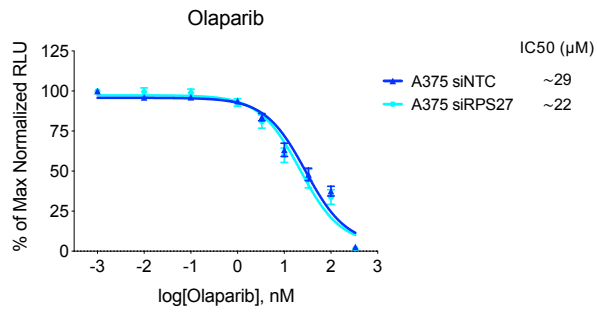


Supplementary Figure 8

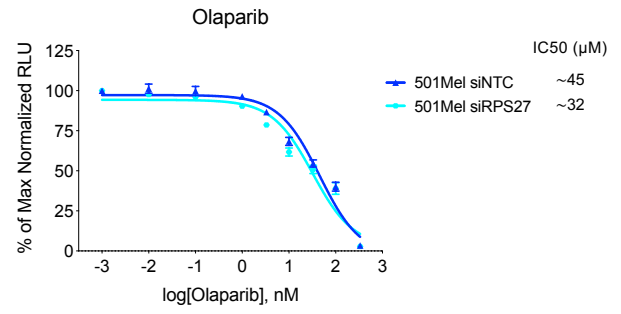


Supplementary Figure 9

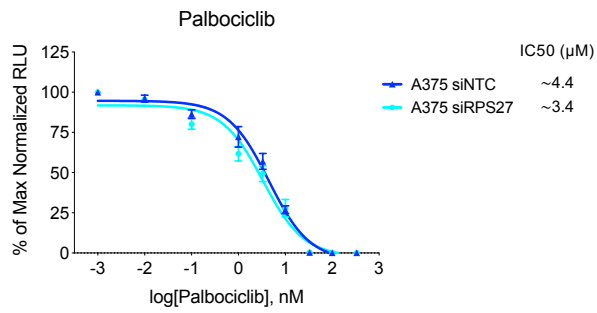
A



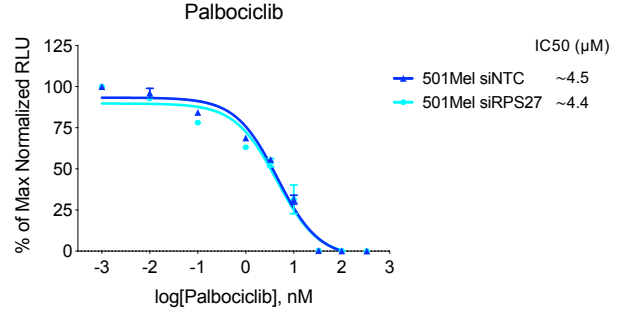
B



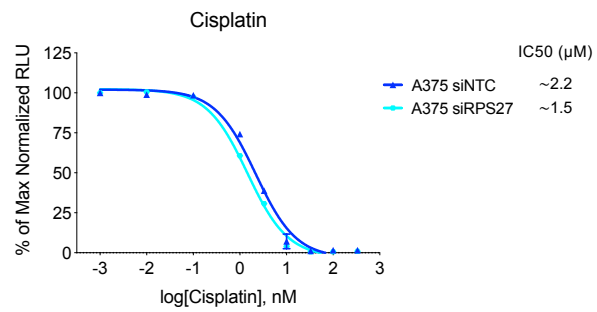
C



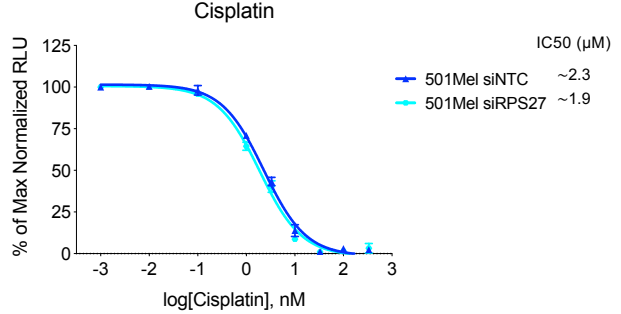
D



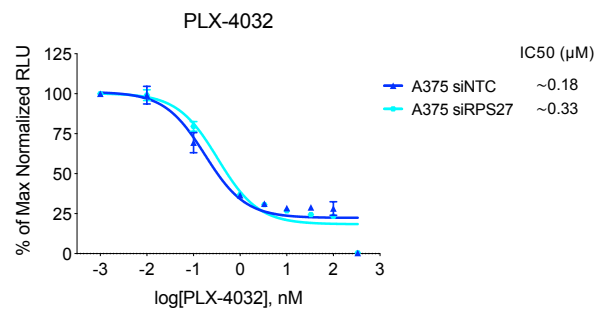
E



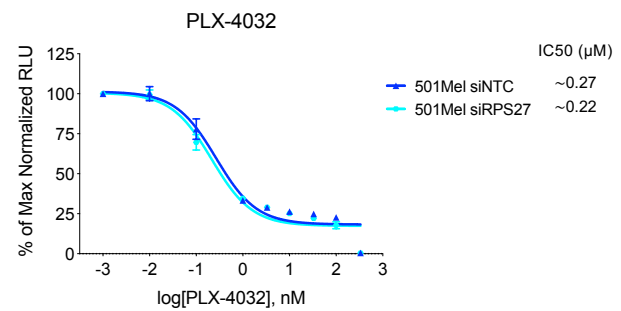
F



G

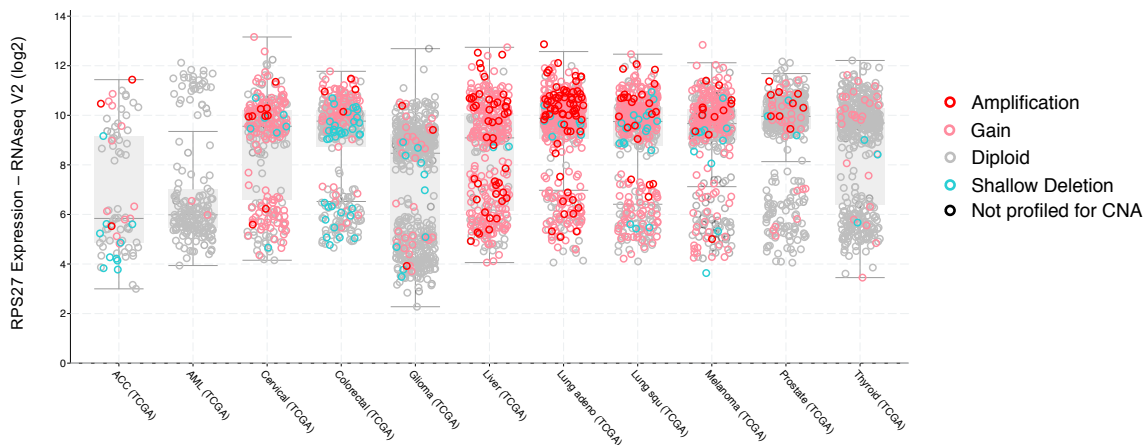


H

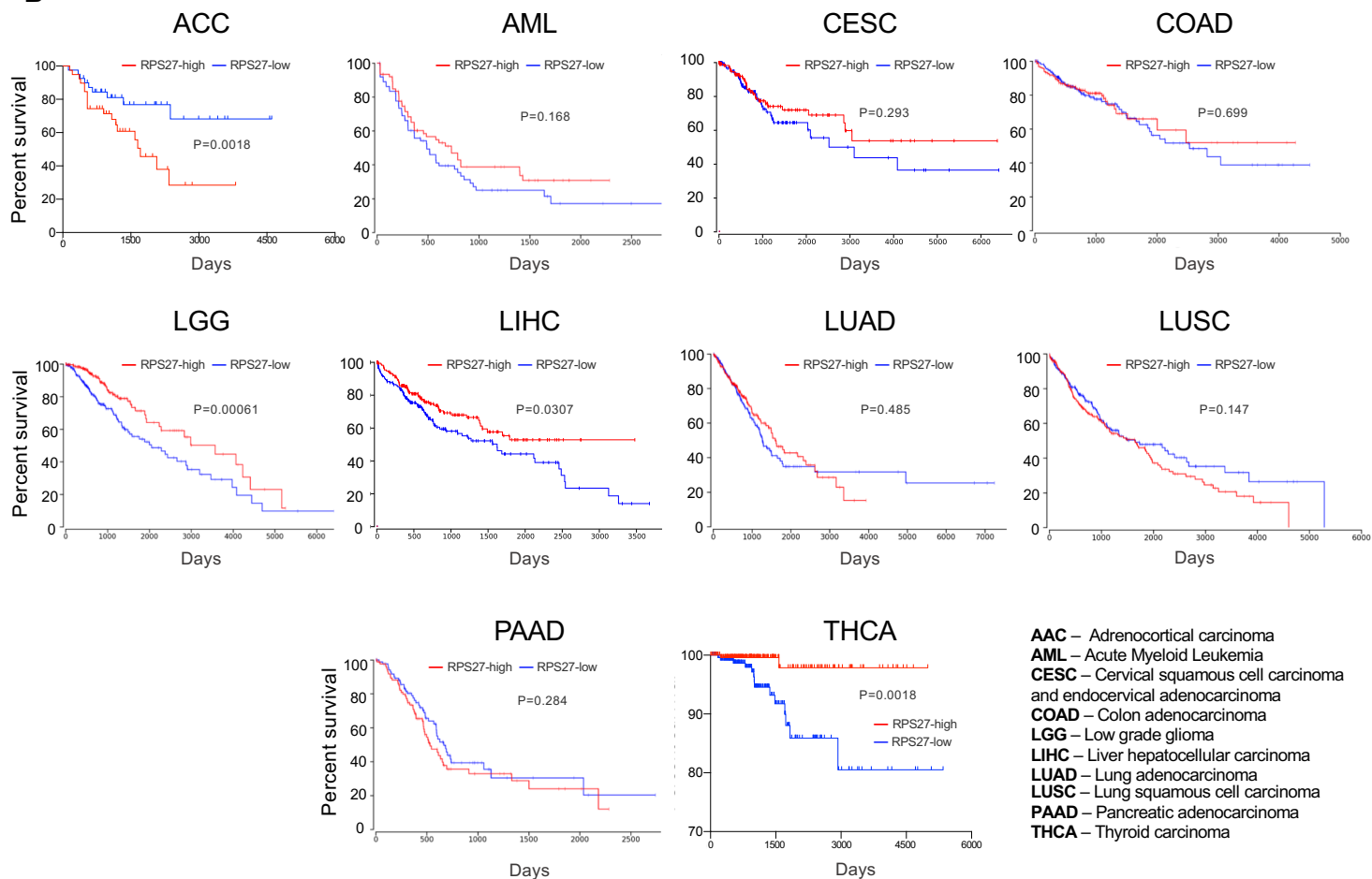


Supplementary Figure 10

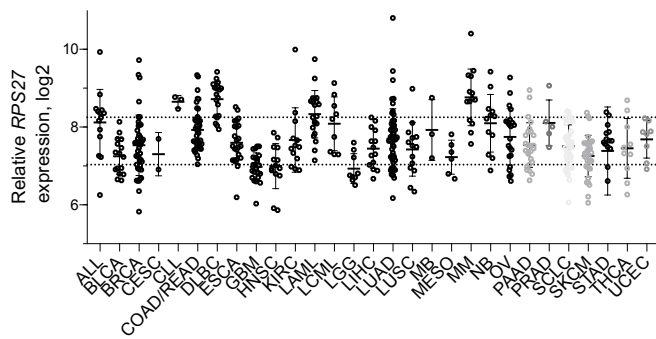
A



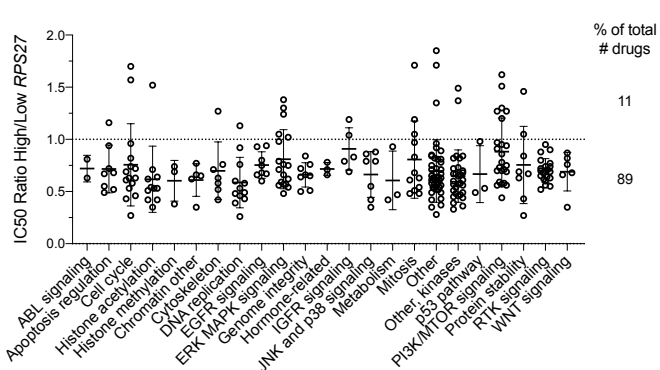
B



C

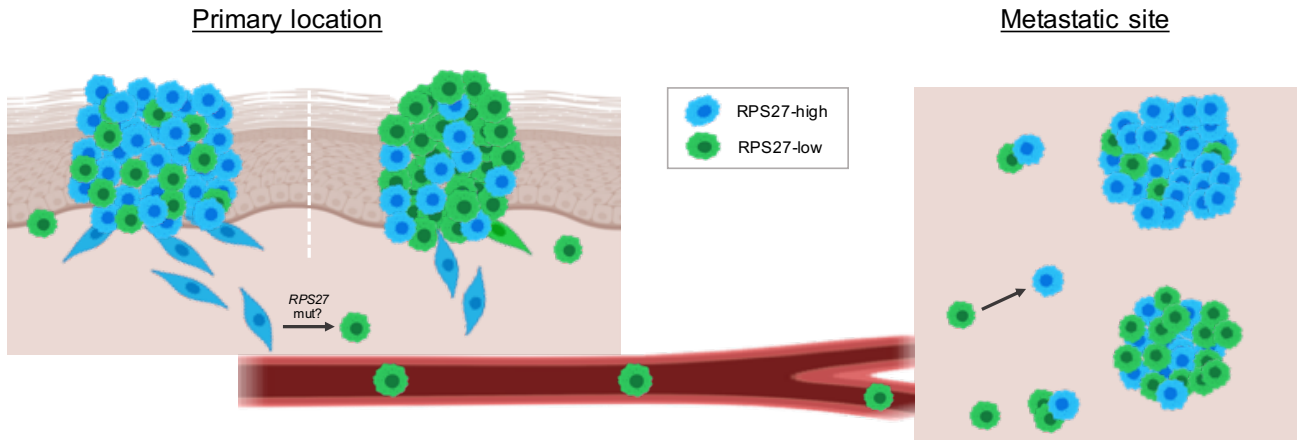


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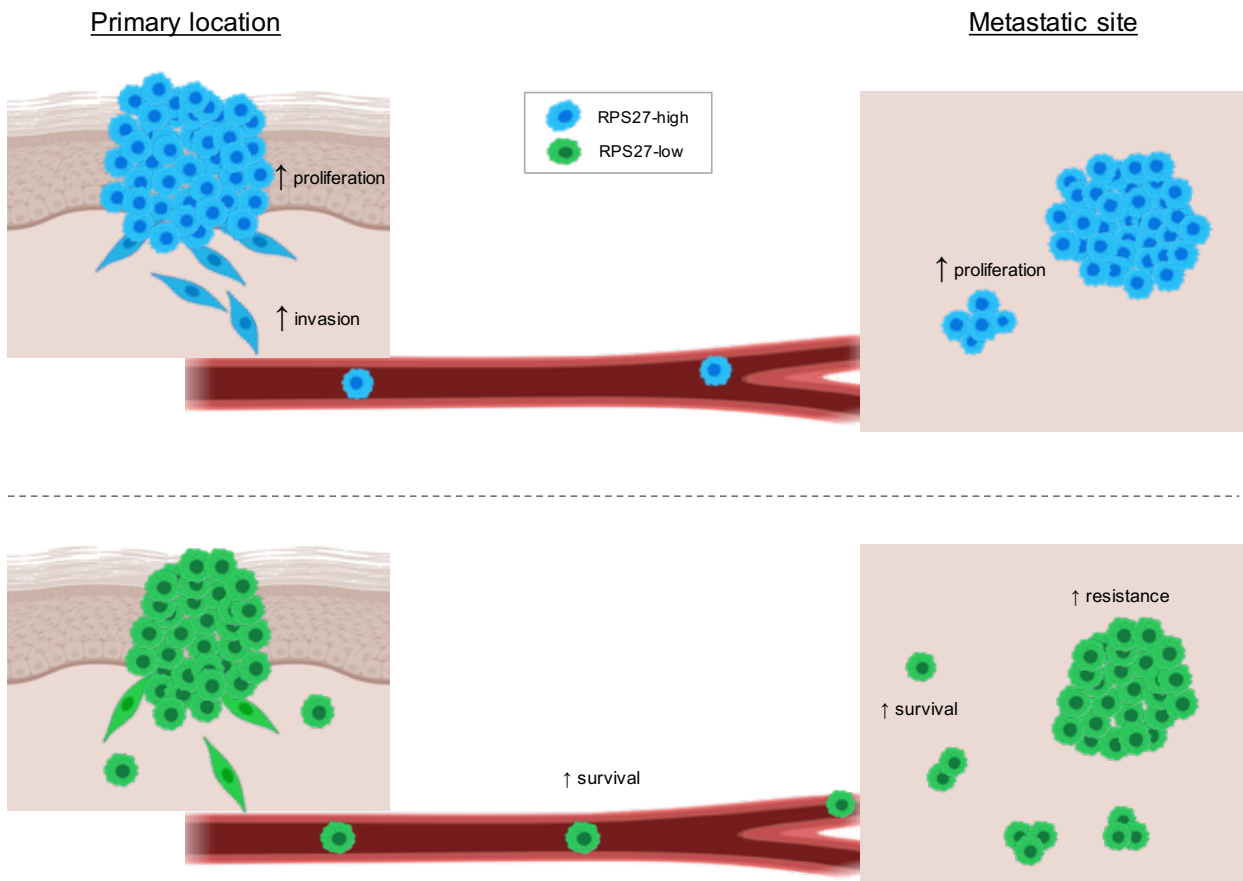


Supplementary Figure 11

A



B



Supplementary Figure 12

