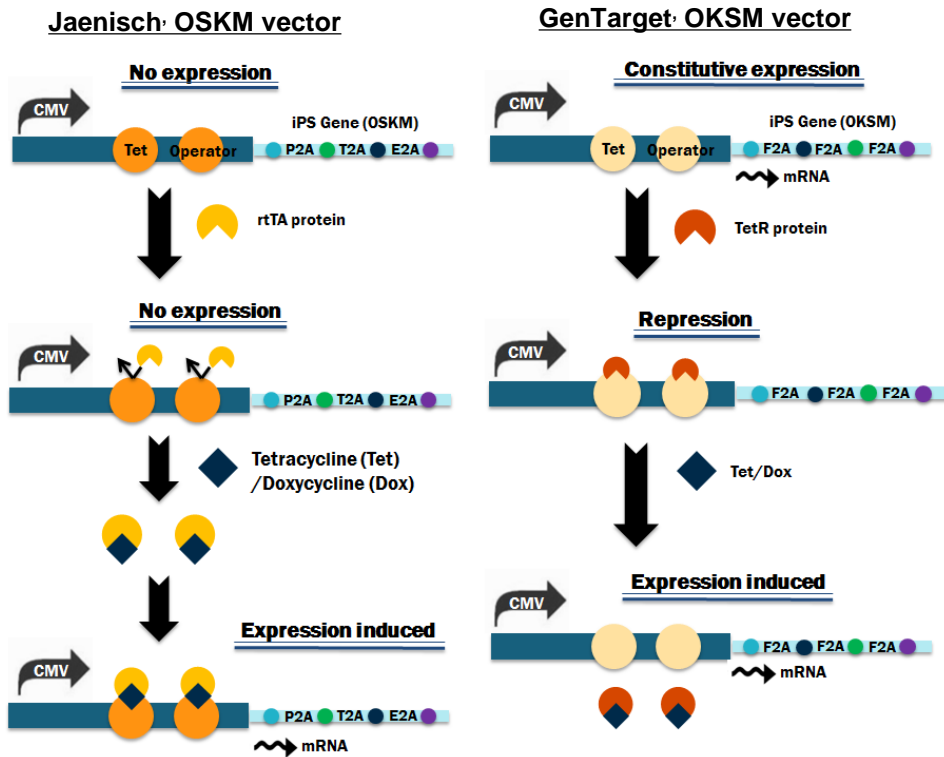
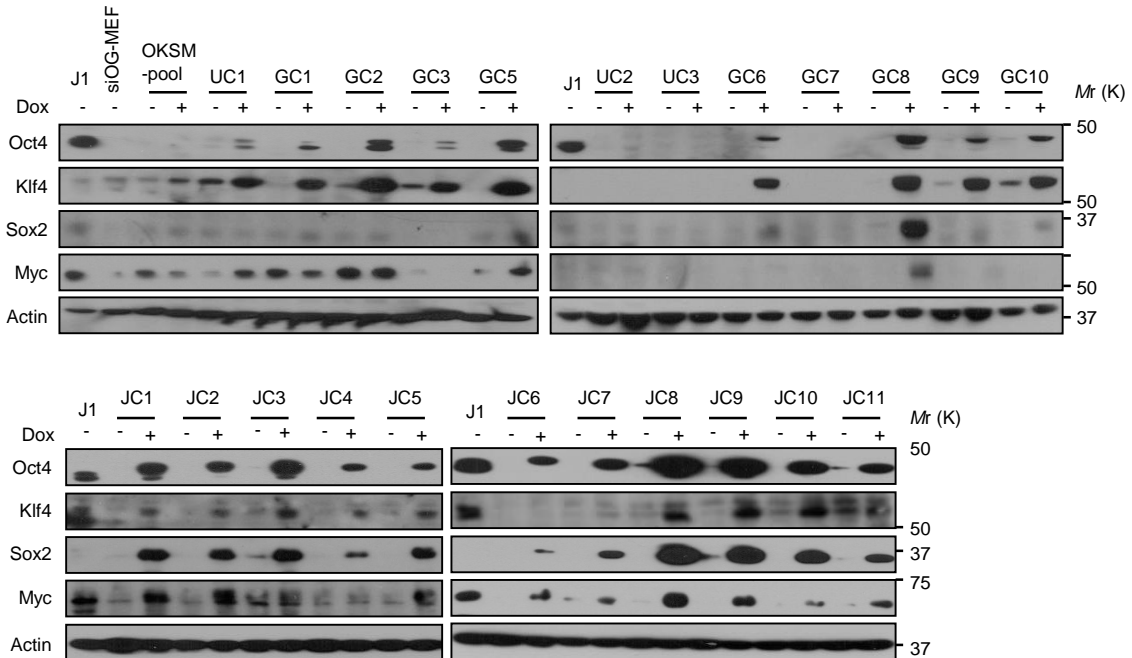


Supplementary Fig 1

a

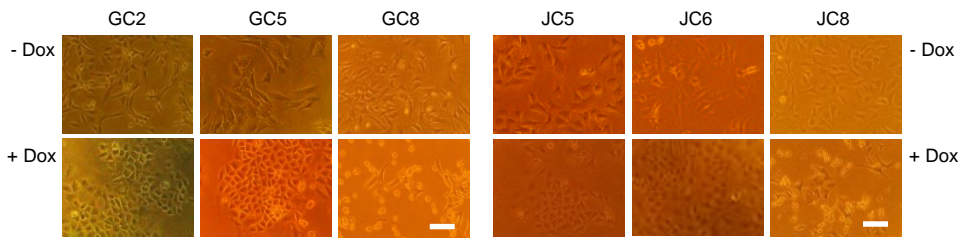


b

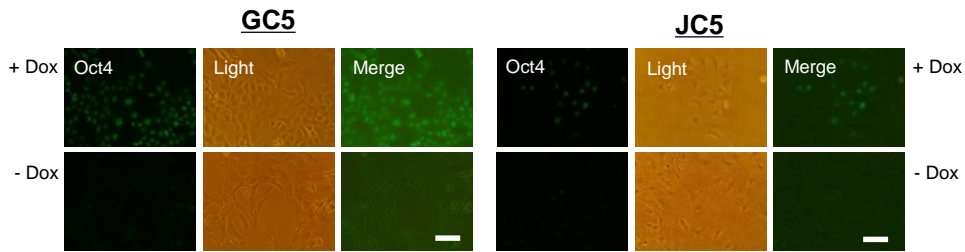


Supplementary Fig 2

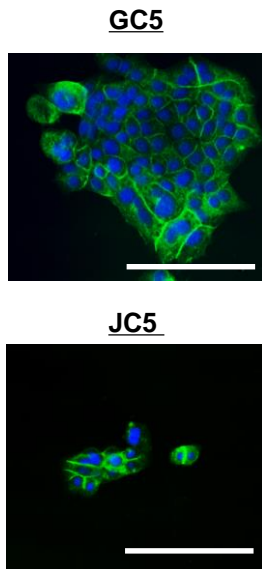
a



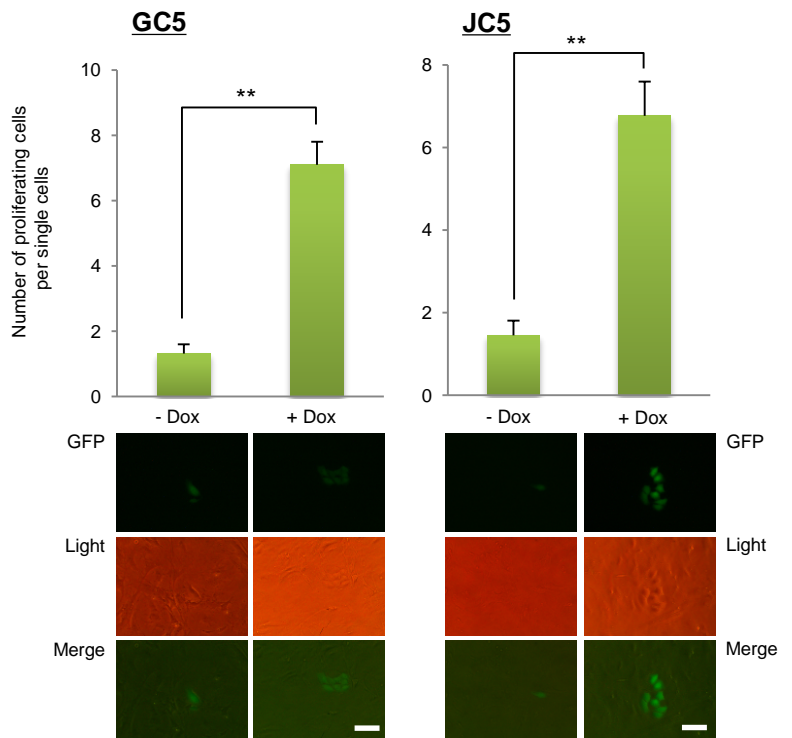
b



c



d



Supplementary Fig 3

a

GC5

Epidermal autoregulatory factor 1 homolog isoform 1
(Mus musculus strain C57BL/6J chromosome 7, GRCm38.p2 C57BL/6J)

GGAAAGTCATCCTAAGAACATTCTCAGTAGAAGAGACC**AAGCAATAGGTCCA**
GCCAGCTGTAGCCGGAGGGGCTGAGGTAAGGGCTCTCAGCCTAGCACTTCT
 TGAAAGTTACTATACCCTATAGCTATTAGGTGAGCAAGGCTATAGCCACCC
 CTGTTATTAGAAACCTATCTATCCCTTGGTGGGCTGAGCGAGAAGACCAA
 CCTGGAGTGGAGCCTCTCTTCAACCTGAGCAAGAGGAGGGTCCCTGCGCA
 CCTCTGAGCAGCTCTTCTCTTTGCACTTGGAACTTCTTATGGGTGTTTACT
 GAGTG-
 -TGGAAGGGCTAATTCACCTCCAACGAAGACAAGATATCCTTGATCTGTGGA
 TCTACCACACACAAGGCTACTTCCCTGATTGCGAGAAGCTACACACAGGGC
 CAGGGATCAGATATCCACTGACCTTTGGATGGTGCTACAAGCTAGTACCAG
 TTGAGCAAGAGAAGGTAGAAGAAGCCATTGAAGGAAAAGAACACCCGCTTG
 TTACACCTGTGAGCCTGCATGGGATGGATGACCCGGAGAGAGAAGTATTA
 GAGTGA**GGTTTGACAGCCCGCTAGCATTTCATCACAT**GGCCCGAGAGCTGC
 ATCCGGA

Chromosome7
(141317192)
Lentiviral
sequence

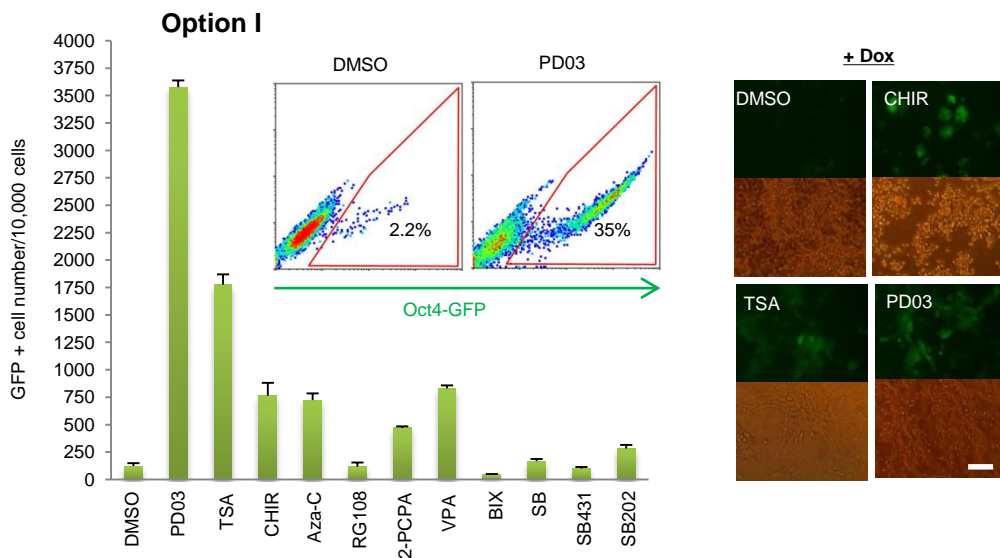
JC5

pleckstrin homology-like domain family A member: KRR' small
subunit (Mus musculus strain C57BL/6J chromosome
10, GRCm38.p2 C57BL/6J)

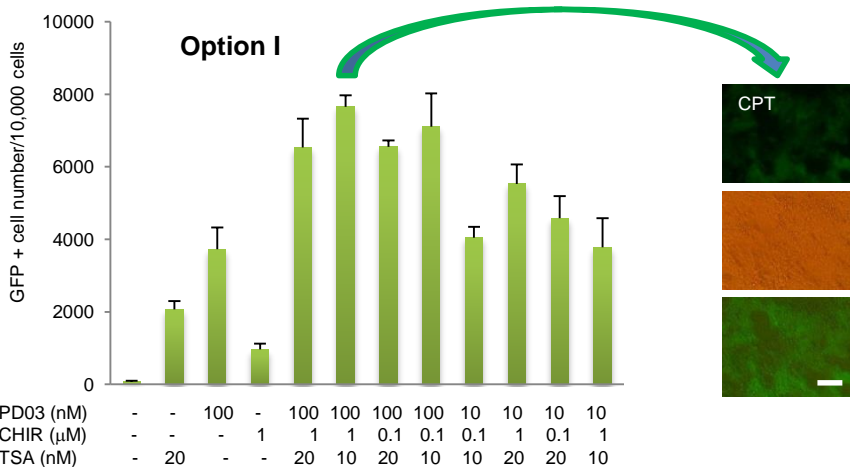
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 CTGGATTTTTCAGTAAGGGTCTAAATTCCTCTCTTTGTCTCCAAGACTGT
 CTGACTTTCCCTTGGCCACTCAGACAAAACAAGAACTGATCCGTTGGTCT
 CATTGGCCAAGGGTCTCATCCCTCTGGTACACAGGTCACCTTCTGGACCAT
 GAGTT-
 -TGGAAGGGCTAATTCACCTCCAACGAAGACAAGATATCCTTGATCTGTGGA
 TCTACCACACACAAGGCTACTTCCCTGATTGCGAGAAGCTACACACAGGGC
 CAGGGATCAGATATCCACTGACCTTTGGATGGTGCTACAAGCTAGTACCAG
 TTGAGCAAGAGAAGGTAGAAGAAGCCATTGAAGGAAAAGAACACCCGCTTG
 TTACACCTGTGAGCCTGCATGGGATGGATGACCCGGAGAGAGAAGTATTA
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 ATCCGGA

Chromosome10
(111690355)
Lentiviral
sequence

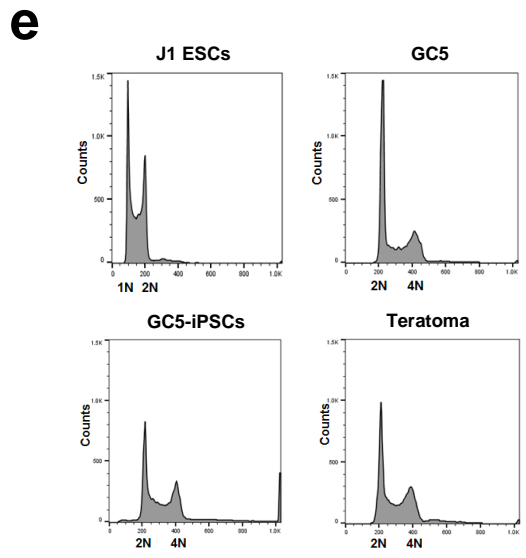
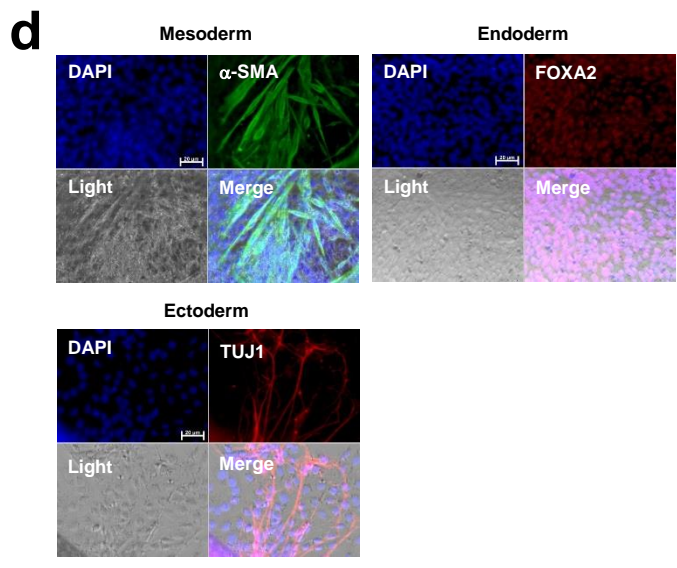
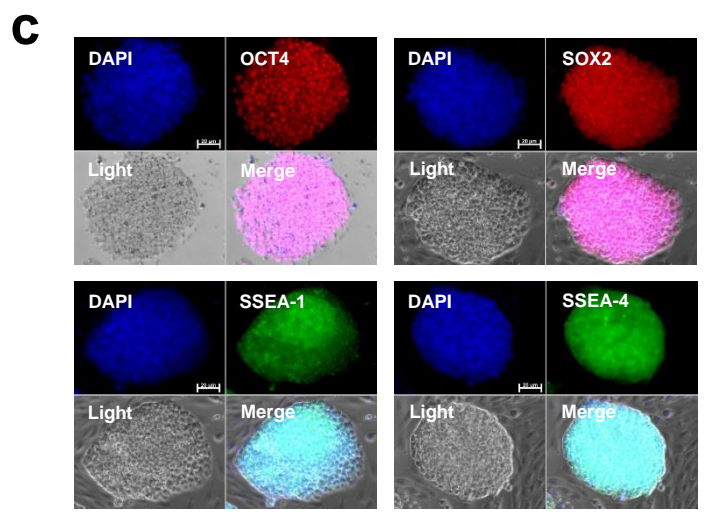
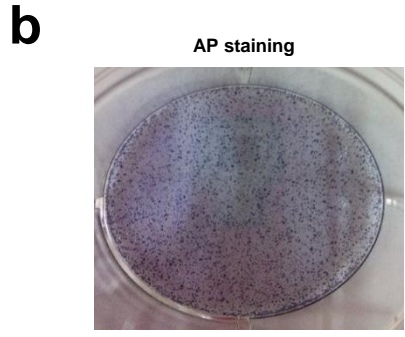
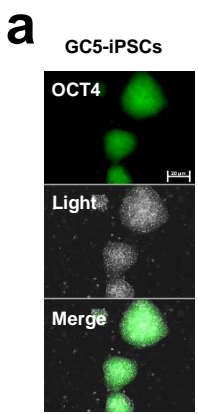
b



c

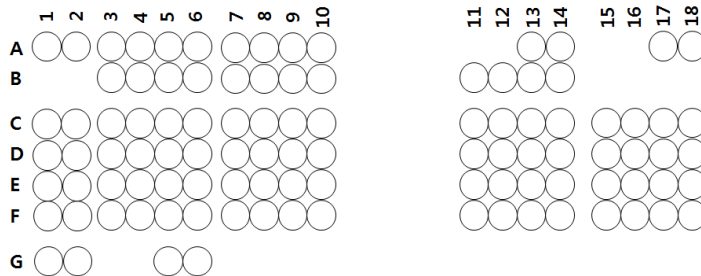


Supplementary Fig 4



Supplementary Fig 5

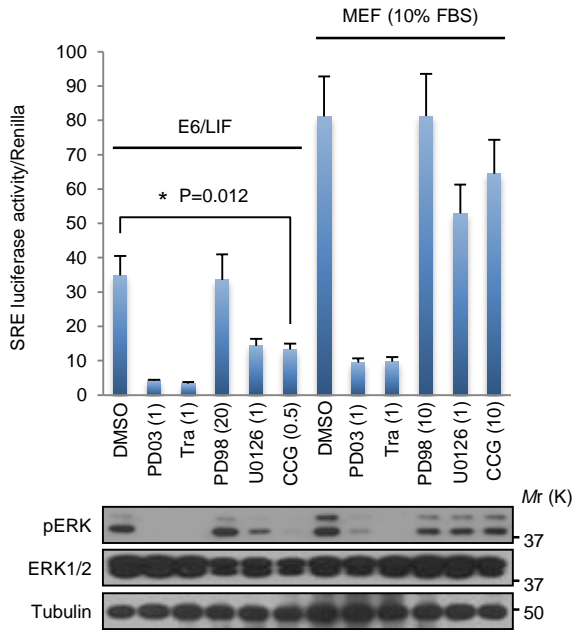
Human Phospho-Kinase Profiler Array



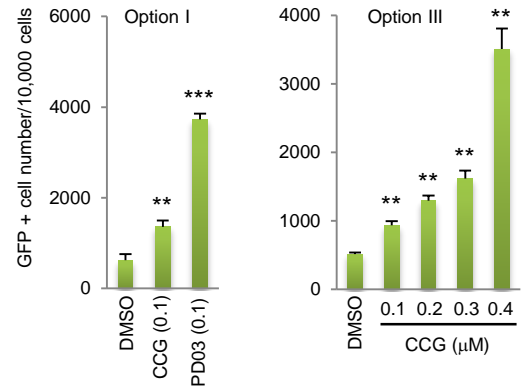
Membrane/Coordinate	Target/Control	Phosphorylation Site	Cell Source/treatment
A · A1, A2	Positive Control	-	-
A · A3, A4	p38α	T180/Y182	MCF-7/UV*
A · A5, A6	ERK 1/2	T202/Y204, T185/Y187	HeLa/PMA*
A · A7, A8	JNK pan	T183/Y185, T221/Y223	MCF-7/UV*
A · A9, A10	GSK-3α/β	S21/S9	MCF-7/rhIGF-1
B · A13, A14	p53	S392	MCCF-7/CPT*
B · A17, A18	Positive Control	-	-
A · B3, B4	MEK1/2	S218/S222, S222/S226	MCF-7/UV*
A · B5, B6	MSK1/2	S376/S360	HeLa/PMA*
A · B7, B8	AMPKα1	T174	Jurkat/H ₂ O ₂ *
A · B9, B10	Akt	S473	MCF-7/rhIGF-1*
B · B11, B12	Akt	T308	K562/Pervanadate
B · B13, B14	p53	S46	MCF-7/CPT*
A · C1, C2	TOR	S2448	MCF-7/UV*
A · C3, C4	CREB	S133	Jurkat/H ₂ O ₂ *
A · C5, C6	HSP27	S78/S82	HeLa/PMA*
A · C7, C8	AMPKα2	T172	HepG2/Metformin
A · C9, C10	β-Catenin	-	HeLa/PMA*
B · C11, C12	p70 S6 Kinase	T389	MCF-7/CPT*
B · C13, C14	p53	S15	MCF-7/CPT*
B · C15, C16	p27	T198	Jurkat/H ₂ O ₂ *
B · C17, C18	Paxillin	Y118	K562/Pervanadate
A · D1, D2	Src	Y419	Colo205/SFM*
A · D3, D4	Lyn	Y397	Daudi/Pervanadate
A · D5, D6	Lck	Y394	Jurkat/Pervanadate
A · D1, D8	STAT2	Y689	Daudi/rhIFN-α2A
A · D9, D10	STAT5a	Y699	U937/PMA + rhIL-4
B · D11, D12	p70 S6 Kinase	T421/S424	MCF-7/UV*
B · D13, D14	RSK1/2/3	S380	HeLa/PMA*
B · D15, D16	p27	T157	K562/Pervanadate
B · D17, D18	PLCγ-1	Y783	Jurkat/H ₂ O ₂ *
A · E1, E2	Fyn	Y420	Daudi/Pervanadate
A · E3, E4	Yes	Y426	K562/Pervanadate
A · E5, E6	Fgr	Y412	K562/Pervanadate
A · E7, E8	STAT3	Y705	LNcap/rhIL-6
A · E9, E10	STAT5b	Y699	Daudi/rhIFN-α2A
B · E11, E12	p70 S6 Kinase	T229	MCF-7/CPT*
B · E13, E14	RSK1/2	S221	U937/PMA + rhIL-4
B · E15, E16	c-Jun	S63	HeLa/PMA*
B · E17, E18	Pyk2	Y402	K562/Pervanadate*
A · F1, F2	Hck	Y411	Daudi/Pervanadate
A · F3, F4	Chk-2	T68	HeLa/CPT*
A · F5, F6	FAK	Y397	HepG2/Pervanadate
A · F7 F8	STAT6	Y641	U937/PMA + rhIL-4
A · F9, F10	STAT5a/b	Y699	Daudi/rhIFN-α2A
B · F11, F12	STAT1	Y701	Daudi/rhIFN-α2A
B · F13, F14	STAT4	Y693	NC-37/Pervanadate
B · F15, F16	eNOS	S1177	Jurkat/H ₂ O ₂ *
B · F17, F18	PBS (Negative Control)	-	-
A · G1, G2	Positive Control	-	-
A · G5, G6	PBS (Negative Control)	-	-

Supplementary Fig 6

a

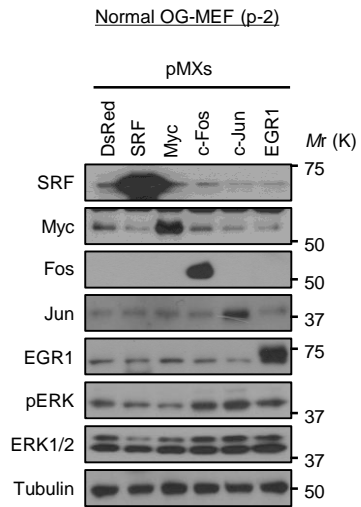


b

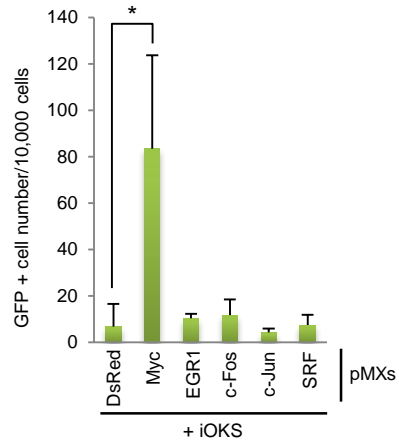


Supplementary Fig 7

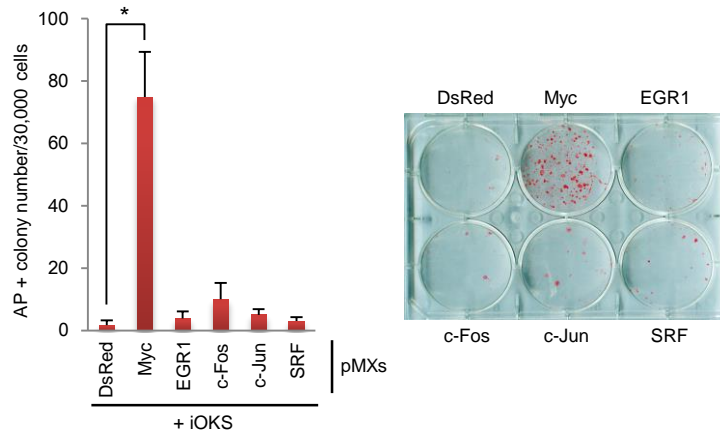
a



b



c



Supplementary Fig 8

