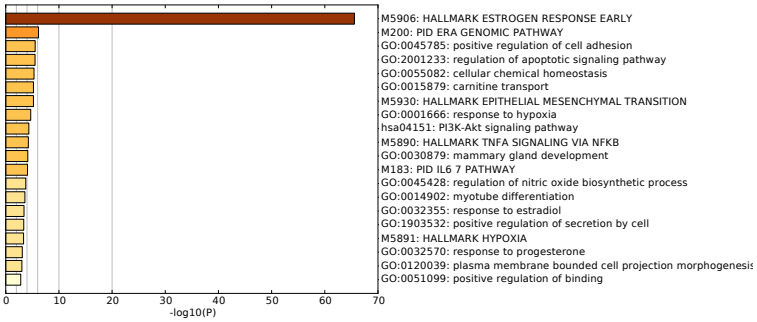
Supplementary Figure 1

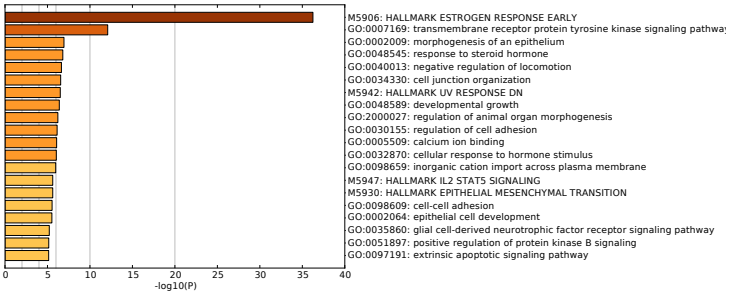
A

Tam down-regulated



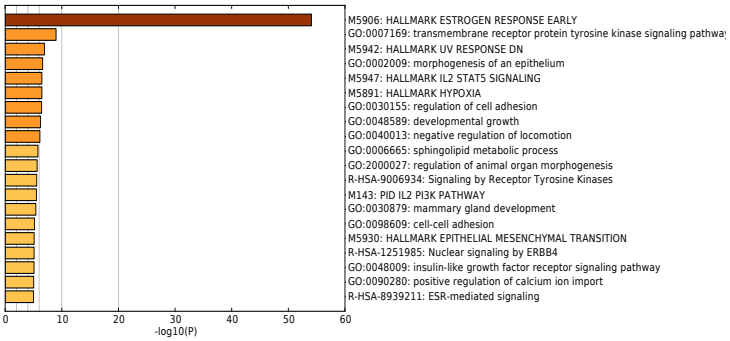
B

PAX2 down-regulated



C

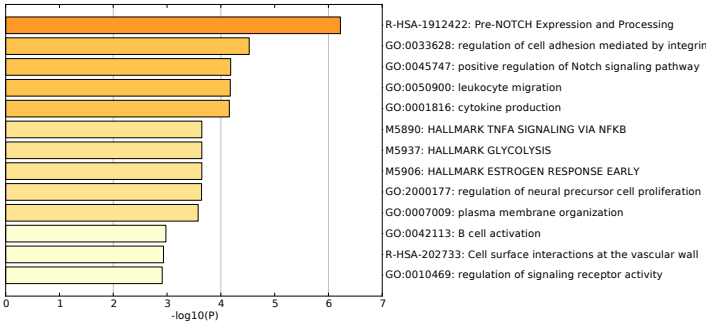
PAX2 Tam down-regulated



Supplementary Figure 2

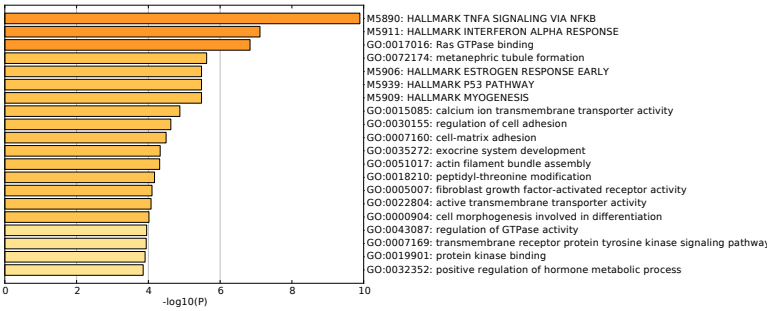
A

Tam up-regulated



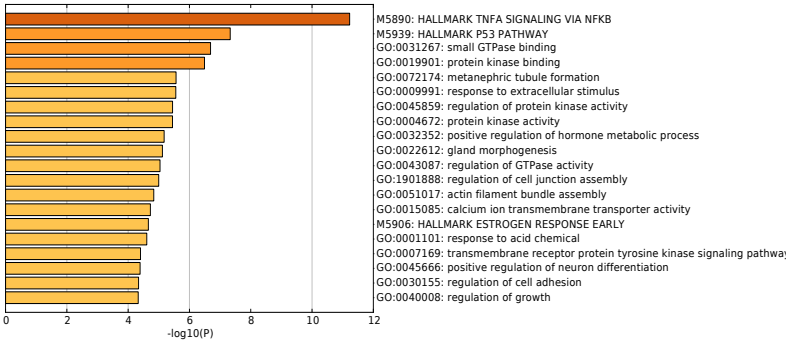
B

PAX2 up-regulated



C

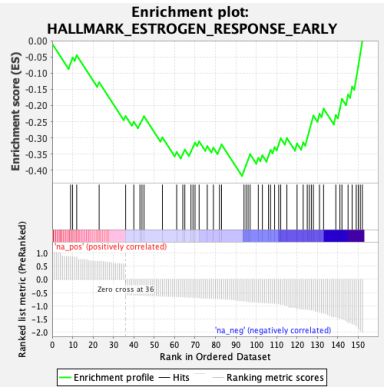
PAX2 Tam up-regulated



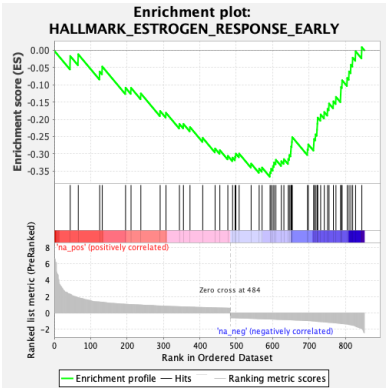
Supplementary Figure 3

A

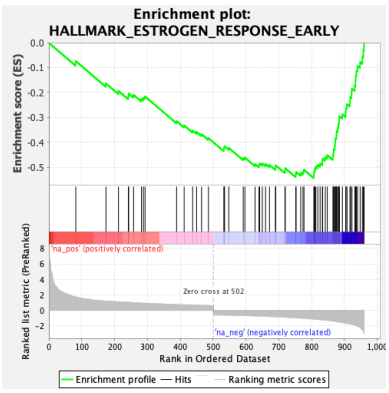
Tam



Dox



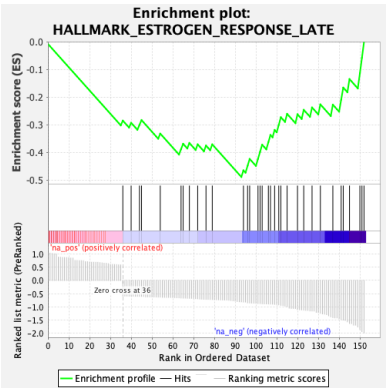
DoxTam



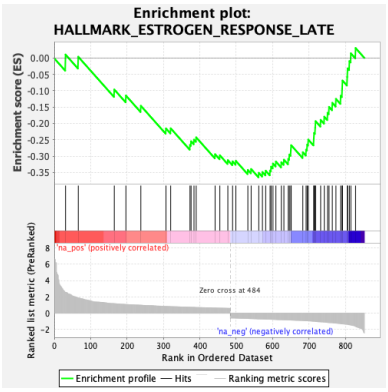
Estrogen response early	ES	NES	FDR
Tam	-0.42	-1.97	0.002
Dox	-0.37	-2.37	0.002
DoxTam	-0.54	-3.53	0.000

B

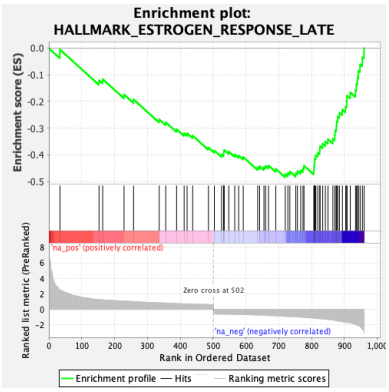
Tam



Dox

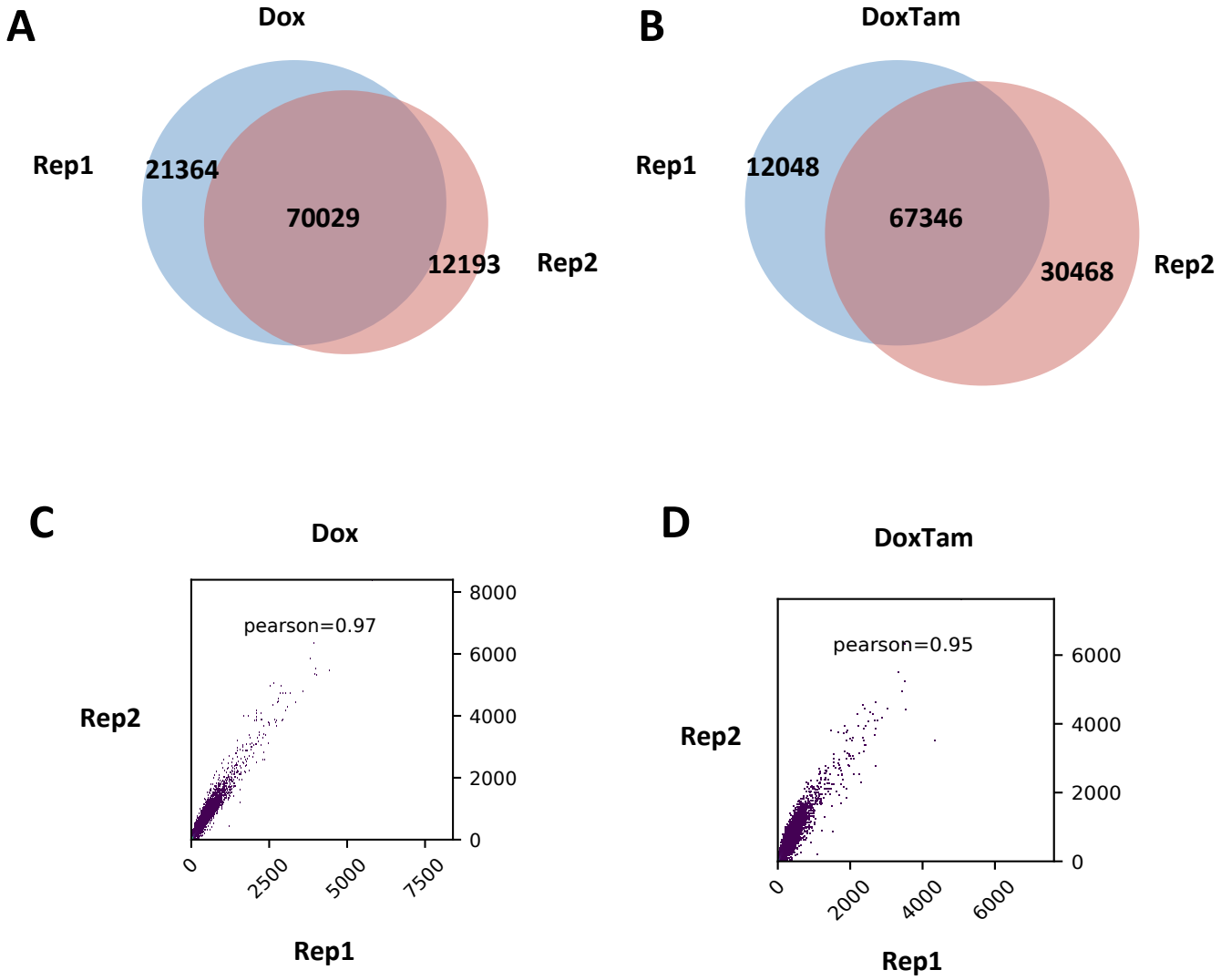


DoxTam

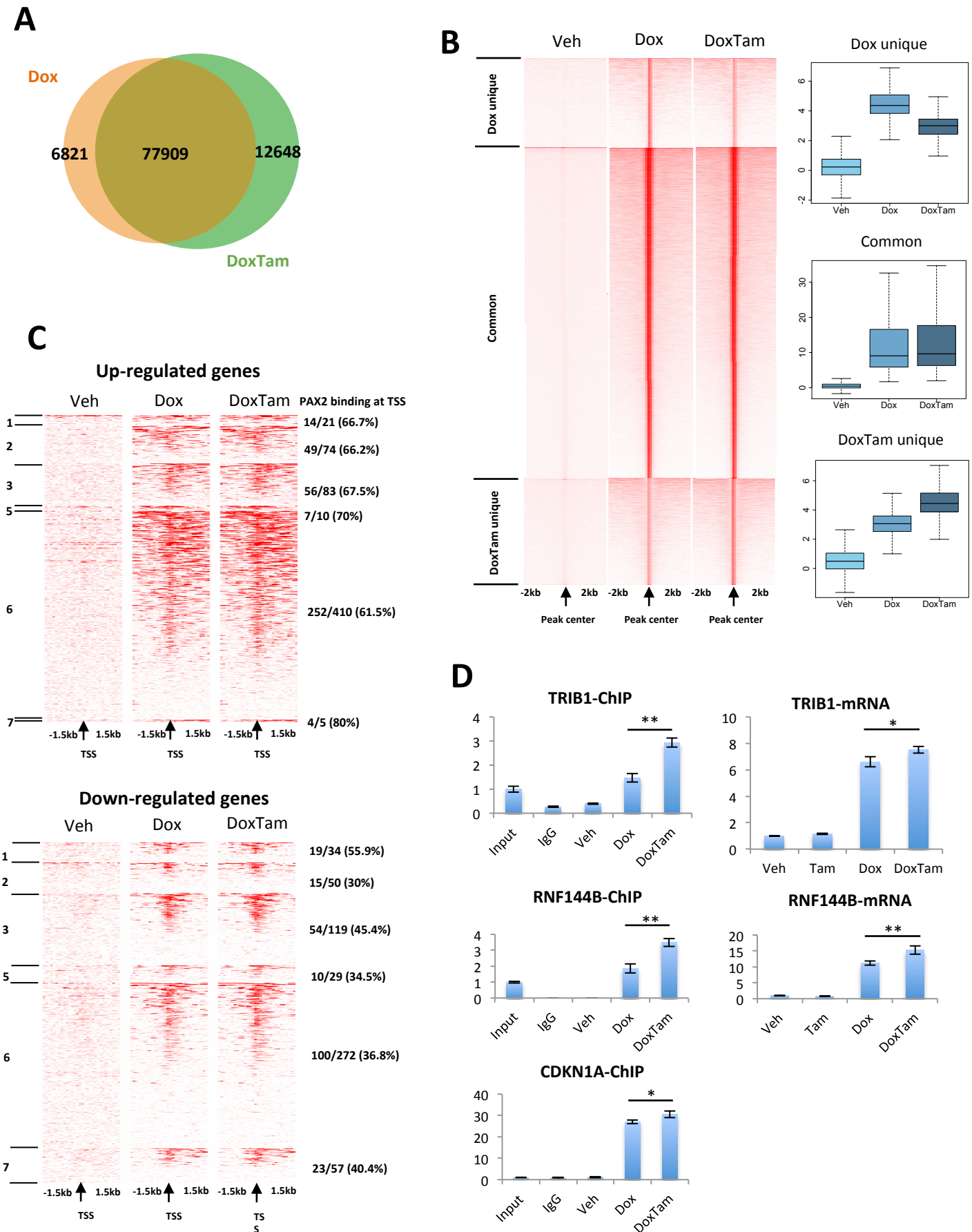


Estrogen response late	ES	NES	FDR
Tam	-0.49	-2.15	0.001
Dox	-0.36	-2.3	0.002
DoxTam	-0.48	-3.02	0.000

Supplementary Figure 4

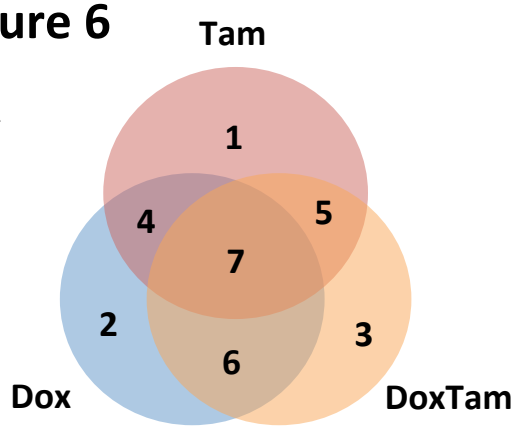


Supplementary Figure 5



Supplementary Figure 6

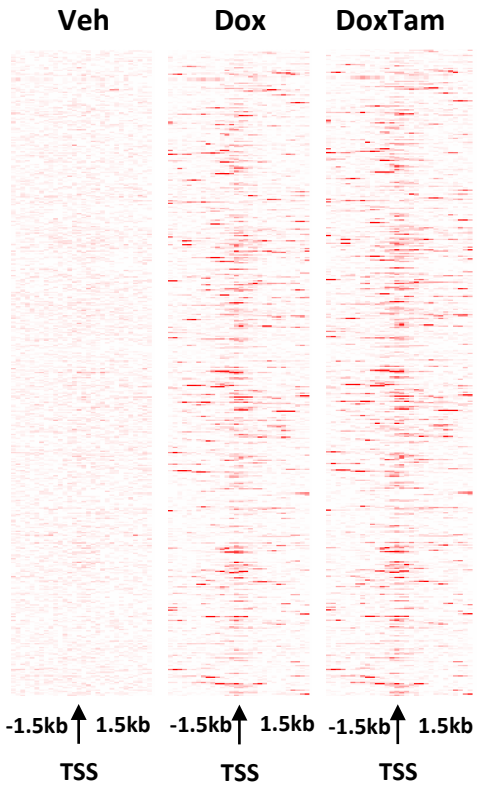
A



B

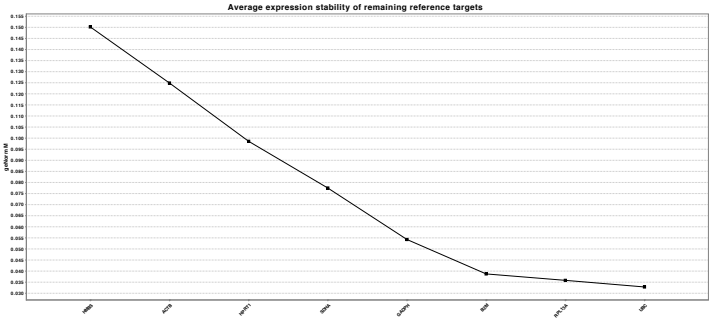
Group	No. of up reg genes	No. of down reg genes
1	21	34
2	74	50
3	83	119
4	0	0
5	10	29
6	410	272
7	5	57

C PAX2 binding on TSS of 500 non-reg genes

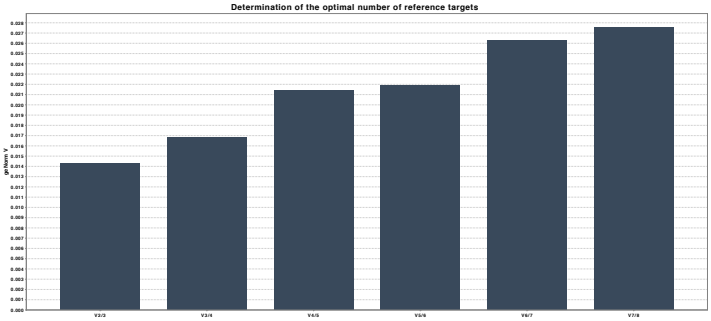


Supplementary Figure 7

A geNORM analysis of 8 reference genes in treatments of GRO-seq



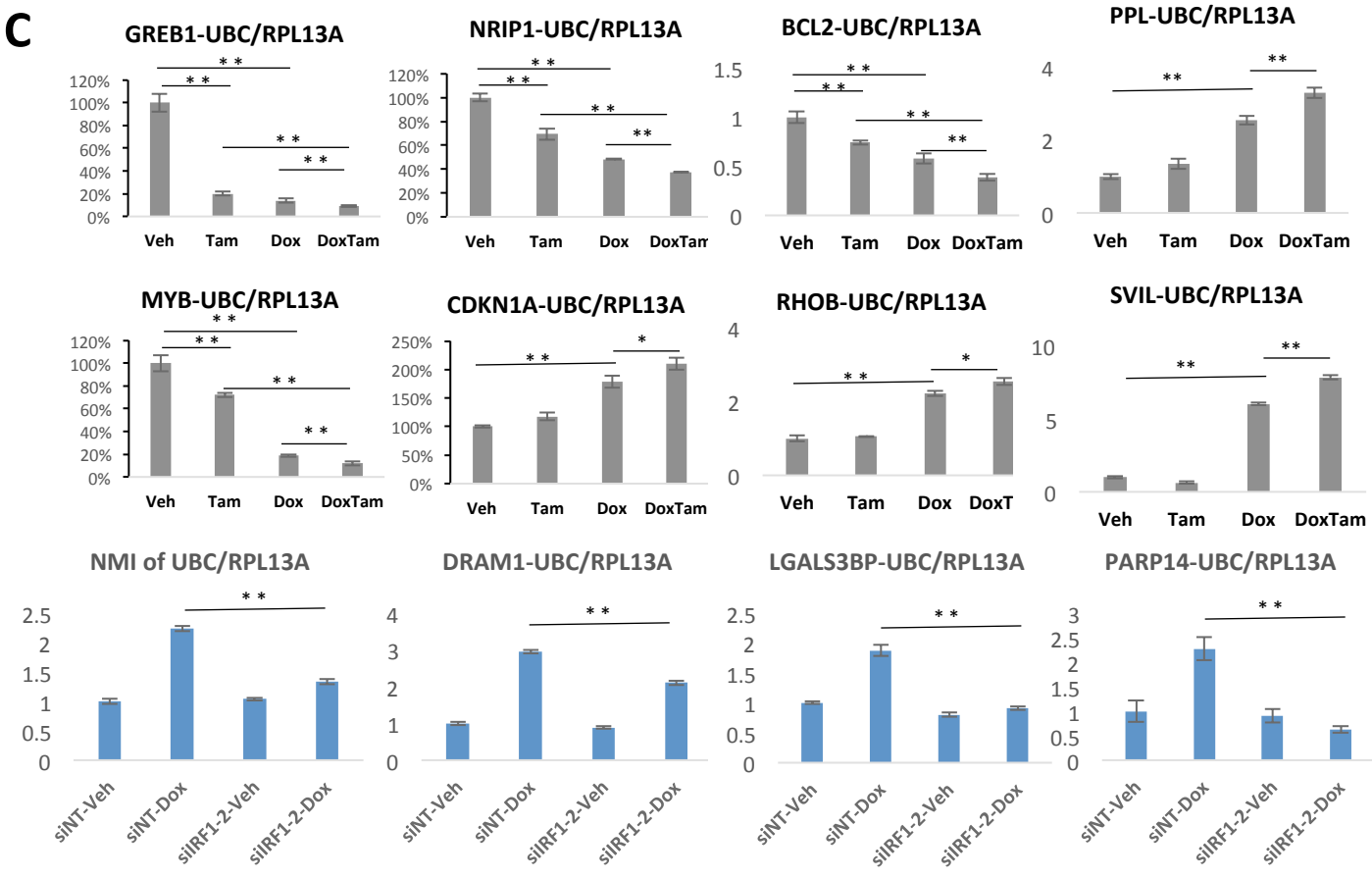
B



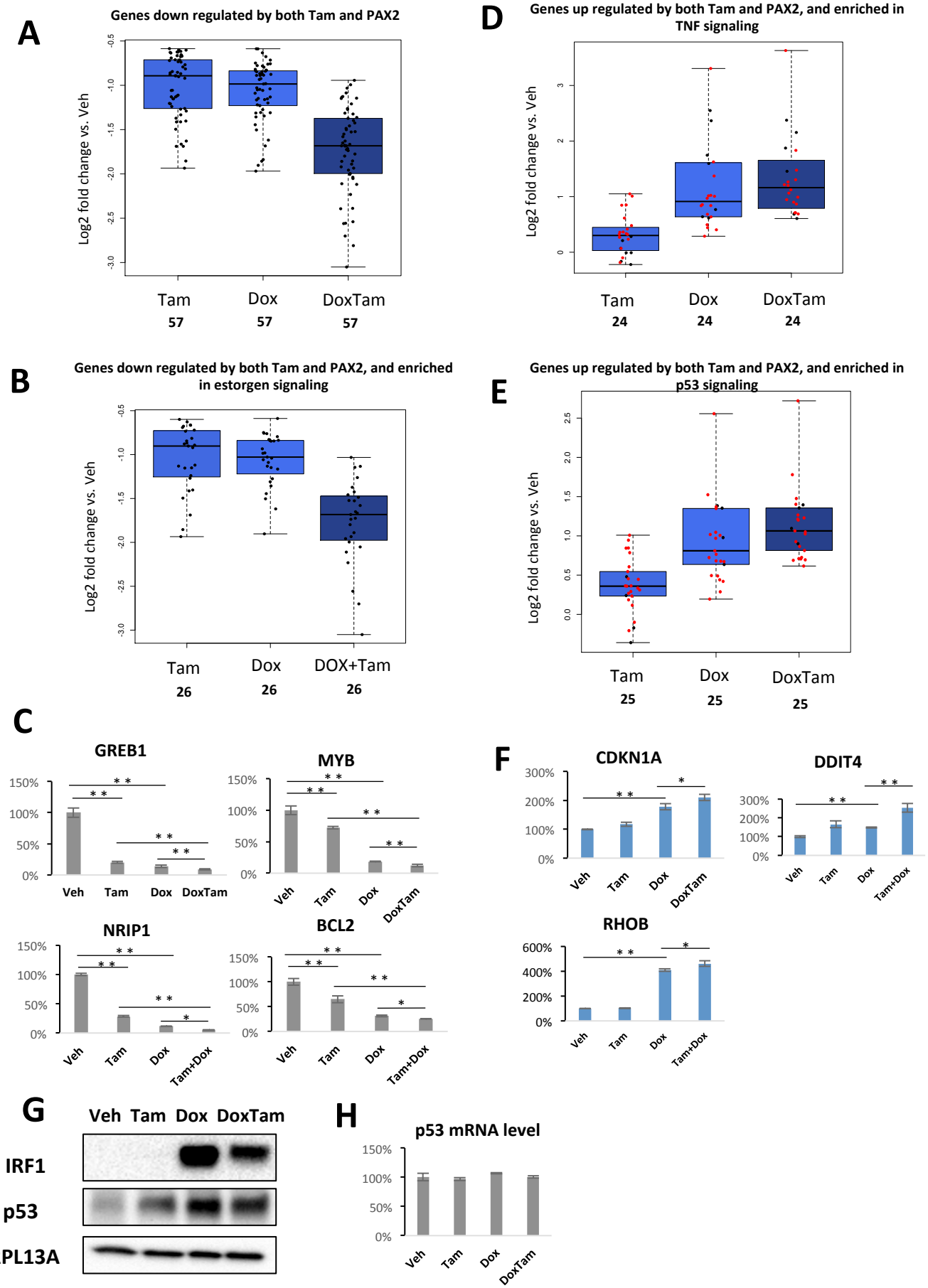
Optimal reference target selection

The optimal number of reference targets in this experimental situation is 2 (geNorm V < 0.15 when comparing a normalization factor based on the 2 or 3 most stable targets). As such, the optimal normalization factor can be calculated as the geometric mean of reference targets RPL13A and UBC.

C



Supplementary Figure 8

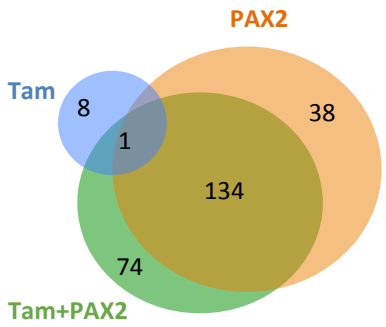


Supplementary Figure 9

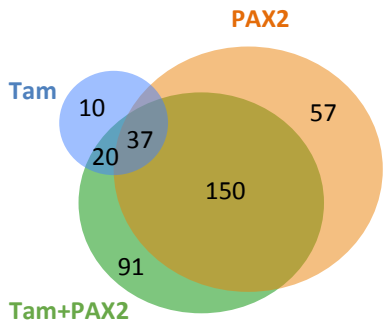
A

Treatments	Up	Down
Tam	9	68
PAX2	173	245
Tam + PAX2	209	298

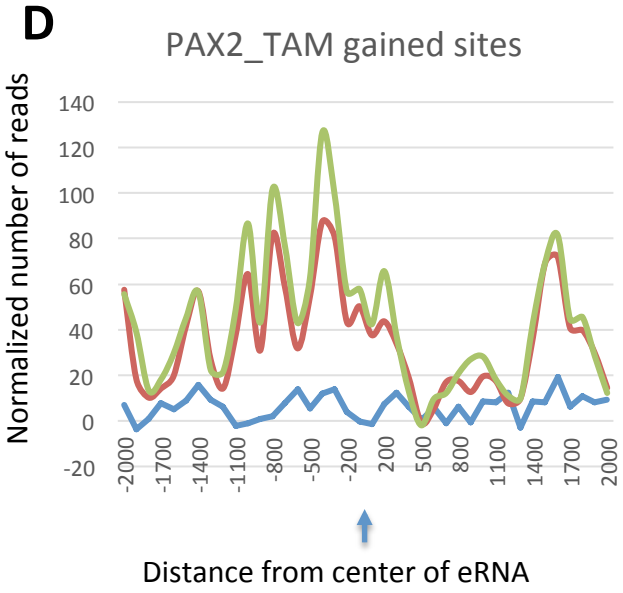
B



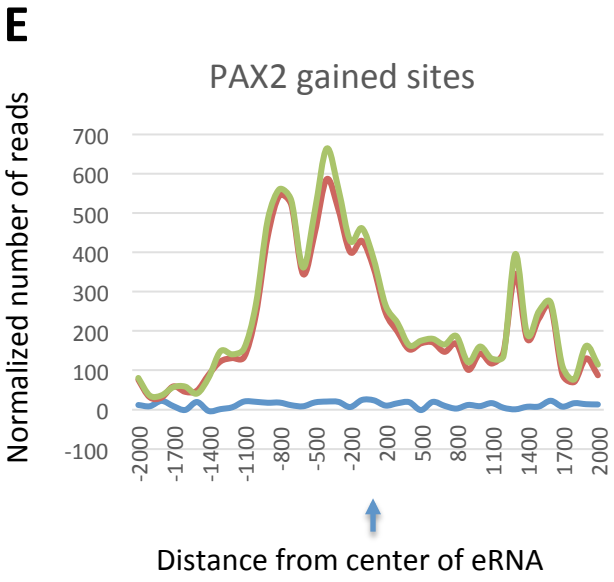
C



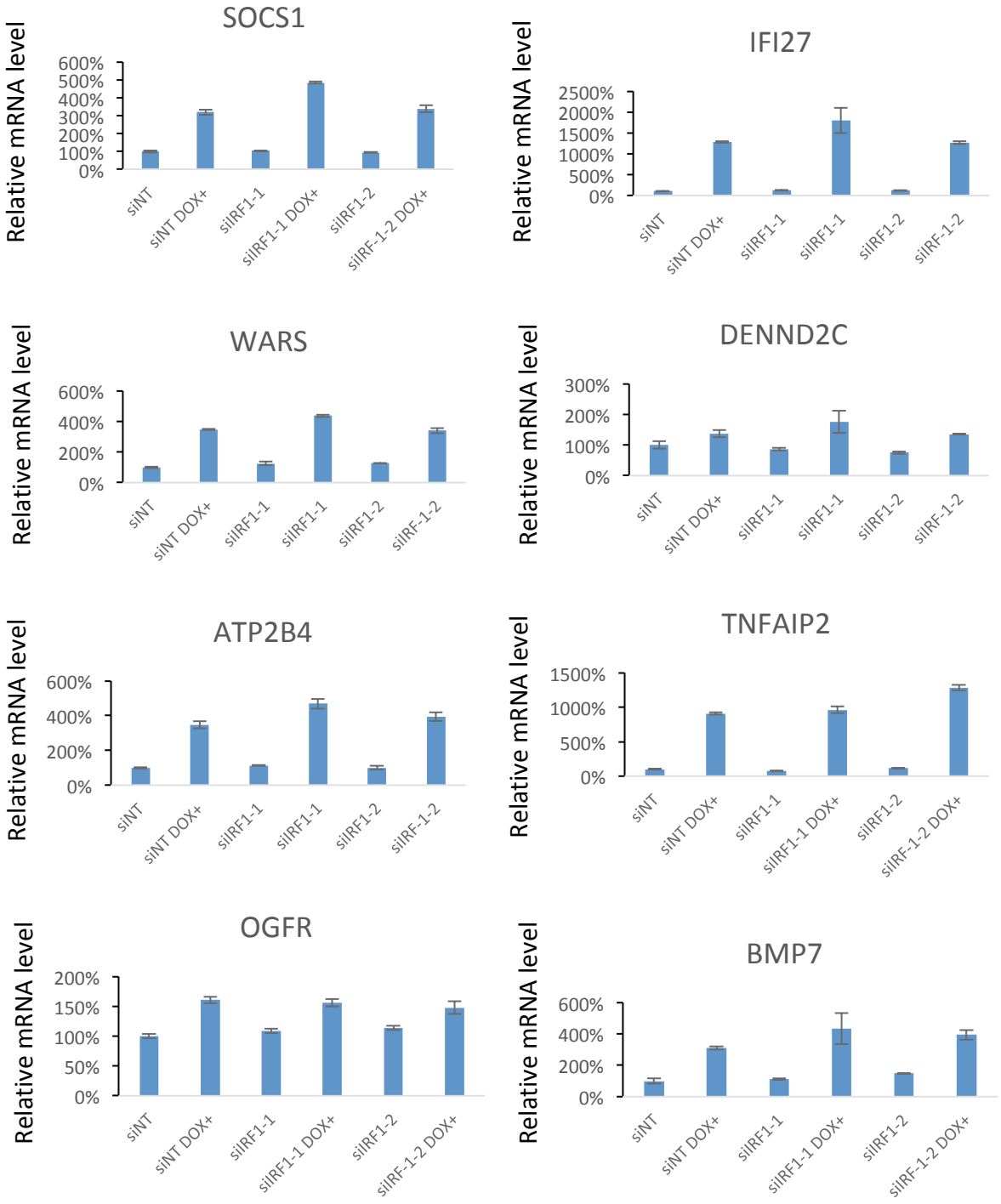
D



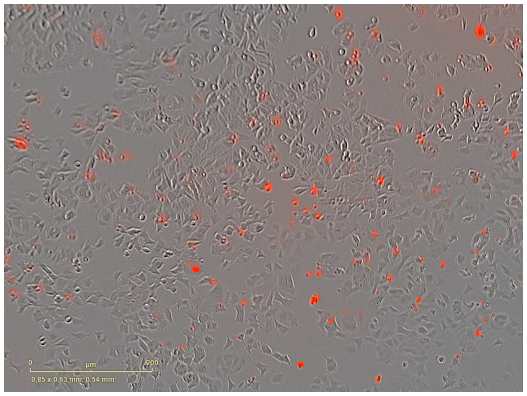
E



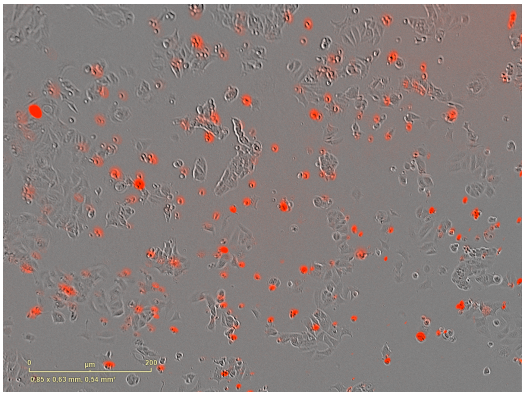
Supplementary Figure 10



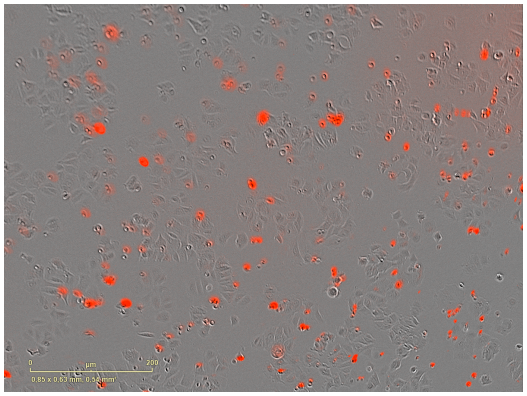
Supplementary Figure 11



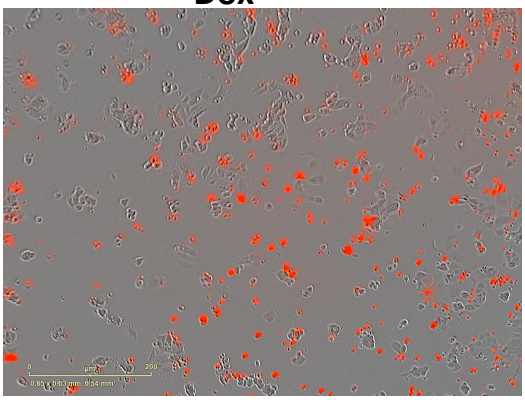
siNT-Veh



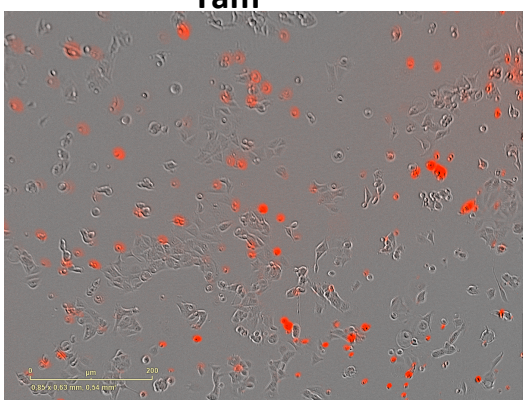
siNT-Dox



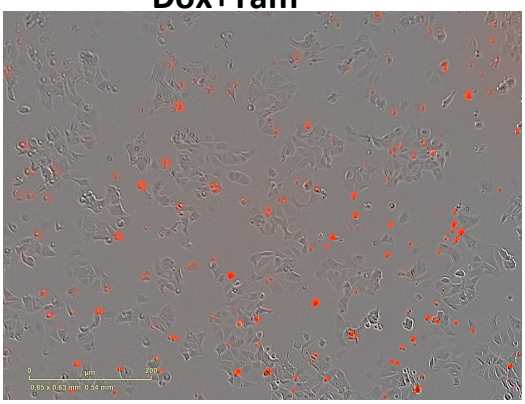
siNT-Tam



siNT-Dox+Tam



siIRF1-1-Dox+Tam



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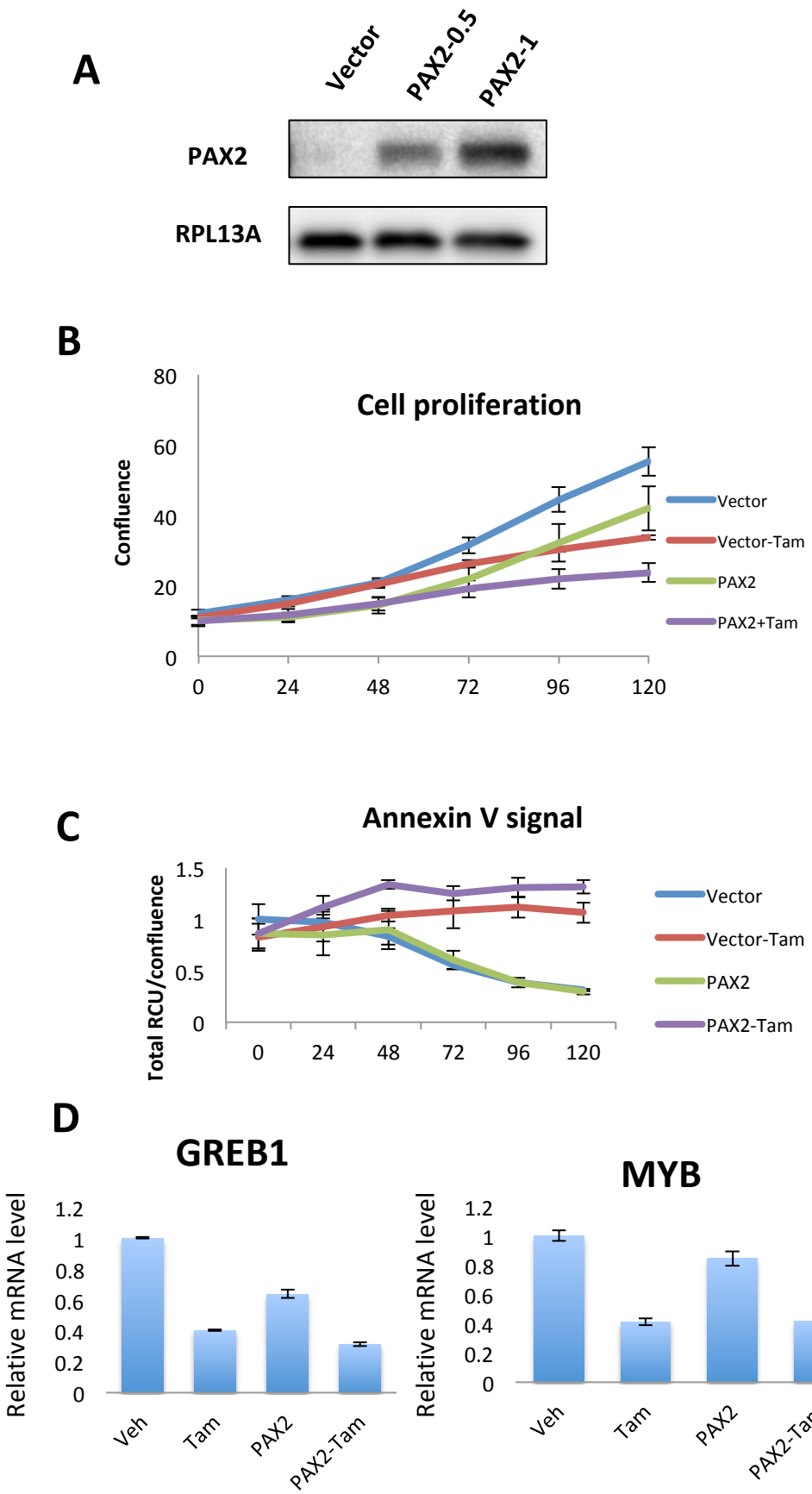
Supplementary Figure 12