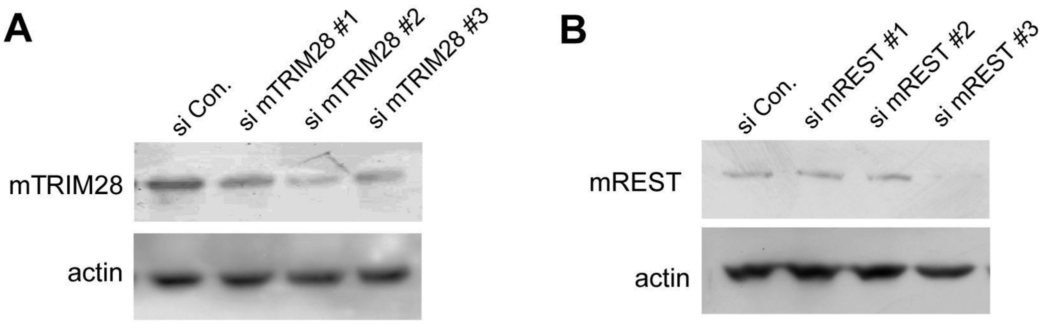
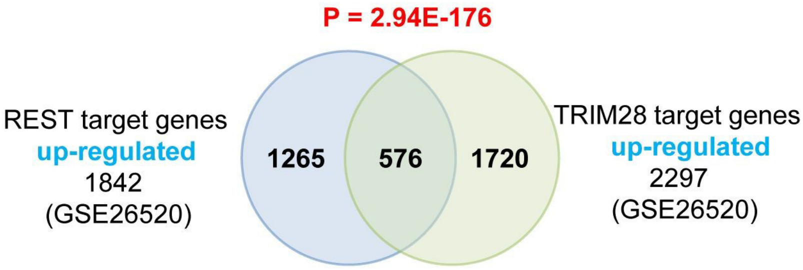
Interactomic analysis of REST/NRSF and implications of its functional links with the transcription suppressor TRIM28 during neuronal differentiation.
; Namgyu Lee*, Sung Jin Park*, Dae-Kyum Kim, Ghazal Haddad, Seon-Min Park, Sang Ki Park, Kwan Yong Choi



Sup. Fig. 1


P = 2.94E-176
REST target genes
up-regulated
1842
(GSE26520)
1265
576
1720
TRIM28 target genes
up-regulated
2297
(GSE26520)

Sup. Fig. 2

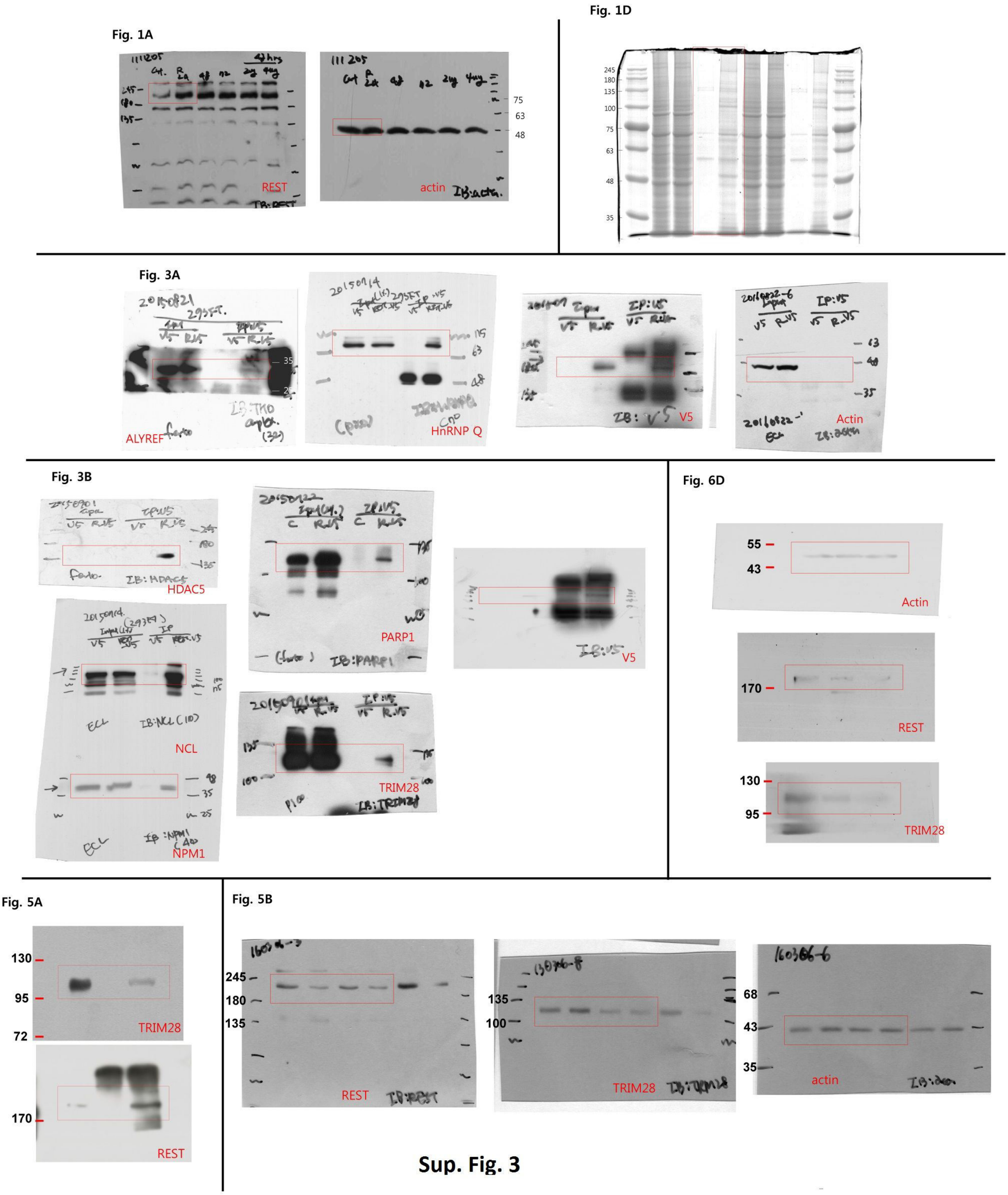


Fig. 1A
REST
actin
75
63
48
Fig. 1D
245
180
135
100
75
63
48
35
Fig. 3A
ALYREF
HnRNP Q
V5
Actin
Fig. 3B
HDAC5
PARP1
V5
NCL
TRIM28
NPM1
Fig. 6D
55
43
Actin
170
REST
130
95
TRIM28
Fig. 5A
130
95
72
TRIM28
170
REST
Fig. 5B
245
180
135
REST
135
100
TRIM28
68
43
35
actin

Sup. Fig. 3

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Supplementary Table 5. List of REST-interacting proteins identified previously

Interacting proteins	Experiment	Reference
mSin3	pull down	[1]
Sin3A	co-IP	[2]
CoREST	pull down, yeast two-hybrid screening	[3]
G9a	co-IP	[4]
CtBP	co-IP	[5]
BRG1 (SMARCA4)	co-IP	[6]
HDAC1	co-IP	[2]
HDAC2	co-IP	[7]
HDAC4	co-IP	[8]
HDAC5	co-IP	[8]
MeCP2	ChIP	[9]
Zfp90	yeast two hybridization, co-IP	[10]
PC4	co-IP, pull down	[11]
SWI/SNF complex; BRG1, Brm, BAF155	Co-IP	[12]
RILP	yeast two hybridization, co-IP	[13]
Kaposin A (KSHV latency, in cytoplasm)	co-IP	[14]
Huntingtin	co-IP	[15]
ß-TRCP	pull down	[16]
HAUSP	co-IP, immucocytochemistry	[17]
TBP	co-IP	[18]
Polycomb Repressor Complex 1 (PRC1) and PRC2; Suz12, Ezh2, Eed, Rnf2, Nspc1	co-IP	[19]
TSPYL2	Mass spectrometry, Co-IP	[20]
TRF2	co-IP, immucocytochemistry	[21]

* Bold is detected in our interactome.

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Supplementary Table 6. siRNA sequences targeting REST and TRIM28

siGENOME SMART pool, Human REST	D-006466-06, CGACAUGUAUGACUUGCAU
	D-006466-07, GGGCCUAAACCUCUUAAUU
	D-006466-08, GAUGGAGGGUGCCCAGAUA
	D-006466-09, CAGUAUAGUUUGUGAAAUG
siGENOME SMART pool, Human TRIM28	J-005046-07, GAAAUGUGAGCGUGUACUG
	J-005046-08, GCGAUCUGGUUAUGUGCAA
	J-005046-09, AGACAGCACUGGCGUGGUG
	J-005046-10, GAACGAGGCCUUCGGUGAC
siGENOME SMART pool, Mouse REST	siRNA#1 GUGAUCAGUGCAAUUAUGU
	siRNA#2 GAGAACGAGCGCAUCUACA
	siRNA#3 CAGAUAGAAGCAACUUCAA
siGENOME SMART pool, Mouse TRIM28	siRNA#1 CUCACAAGGACCAUCAGUA
	siRNA#2 CCACCAGUCUUCAAGGUCU
	siRNA#3 CAGCAUUGCUACUCUGGAU

Supplementary Table 7. Real-time quantitative PCR primers for human genes

Genes		Sequences
CTNND2	F	CCGTGTTTCCTCATCTATGG
	R	CTGCTGAATGCCTTGTTTAGT
GAPDH	F	CCTGGTATGACAACGAATTTGGC
	R	GTACATGACAAGGTGCGGCTC

Supplementary Table 8. Real-time quantitative PCR primers for mouse genes.

Genes		Sequences
CTNND2	F	GAAGTTGGTCGGCATCTCTA
	R	TTTGTCGATCCCTCTCGATG
REST	F	ATGGAAGTGACCTGAGTGAC
	R	GCGATTGAGGTGTTTGCTAT
TRIM28	F	GGAAATGTGAGCGTGTTCTC
	R	TGAACTGTTTGAACATGCGG
GAPDH	F	ACCTGCCAAGTATGATGACA
	R	GCCGTATTCATTGTCATACCAG