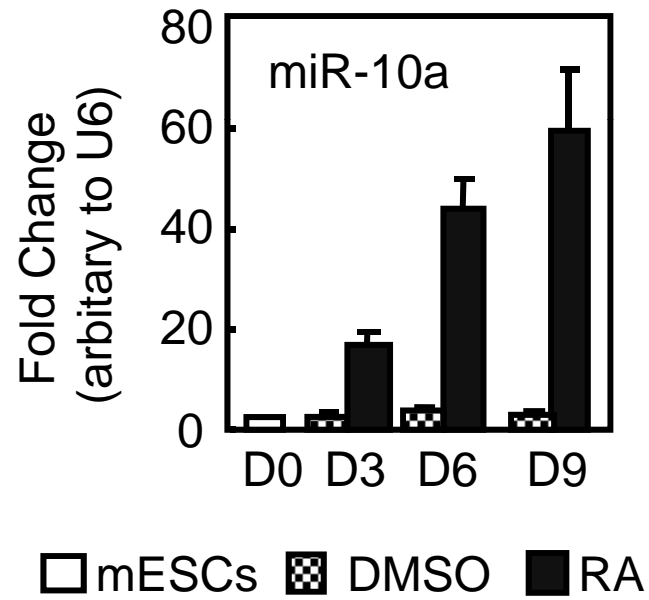
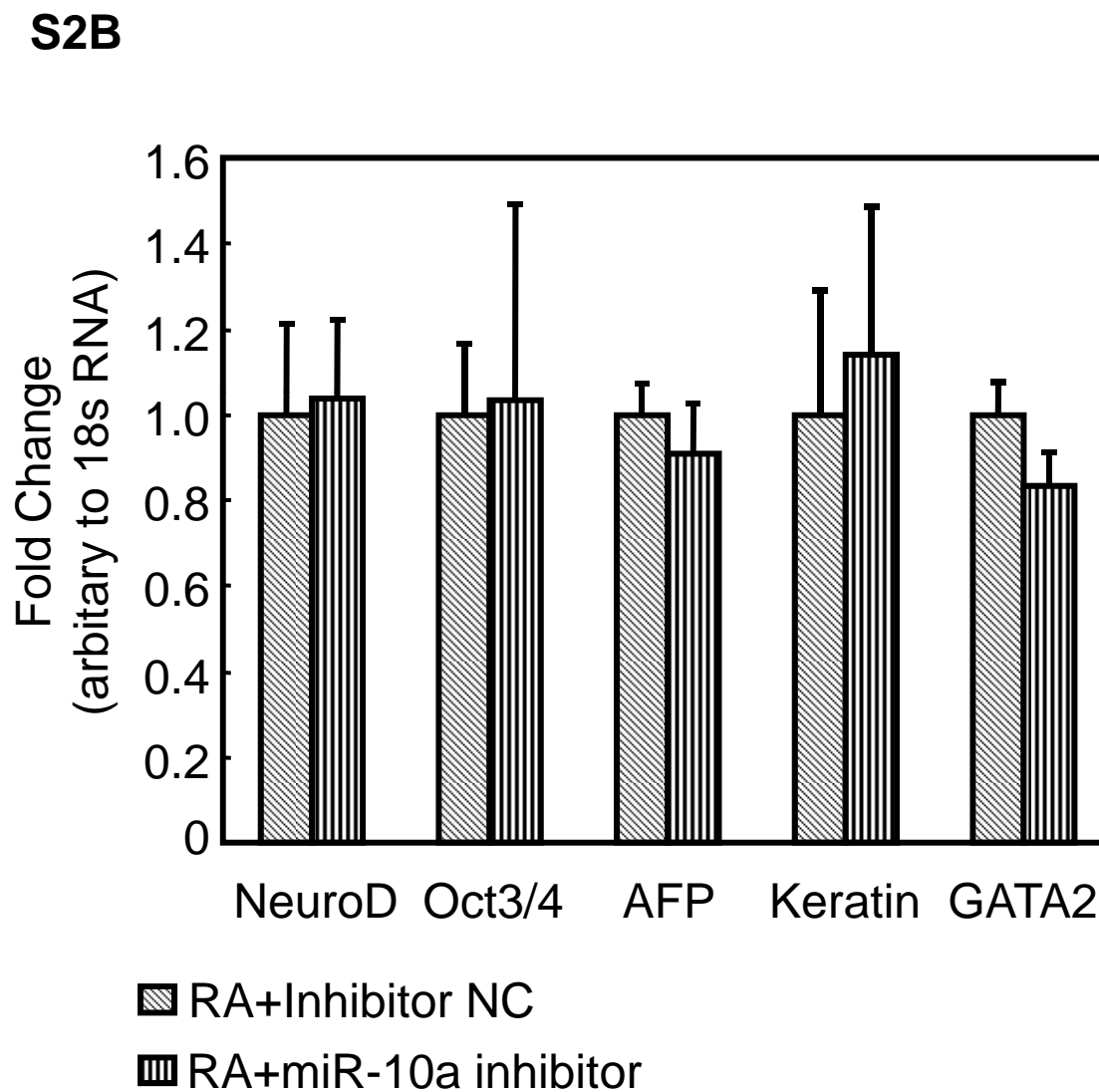
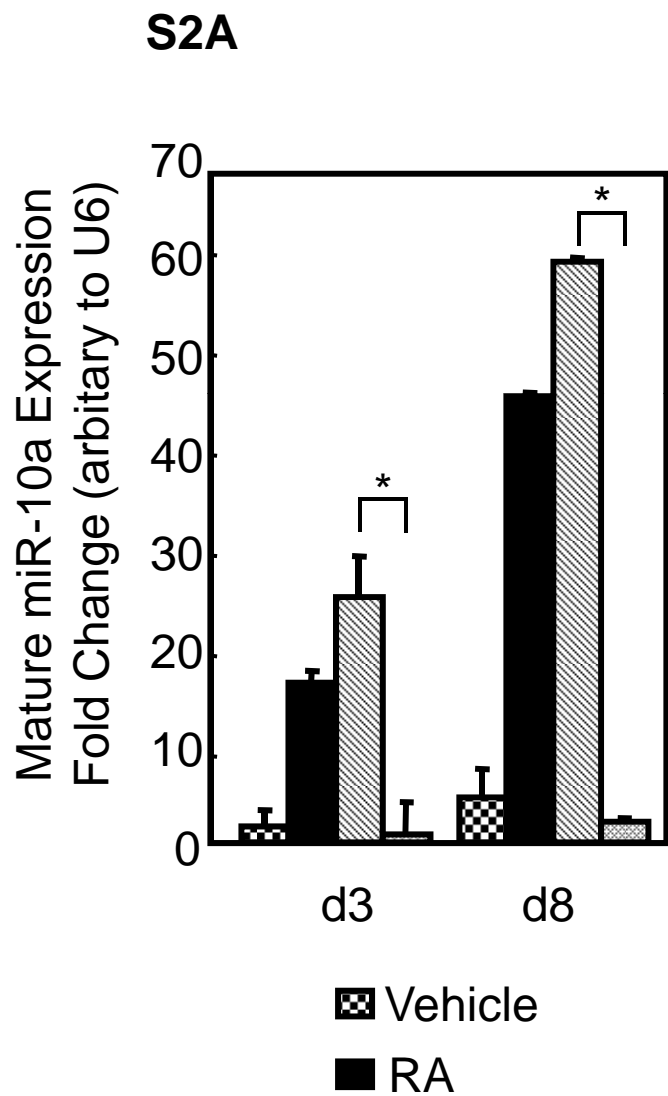
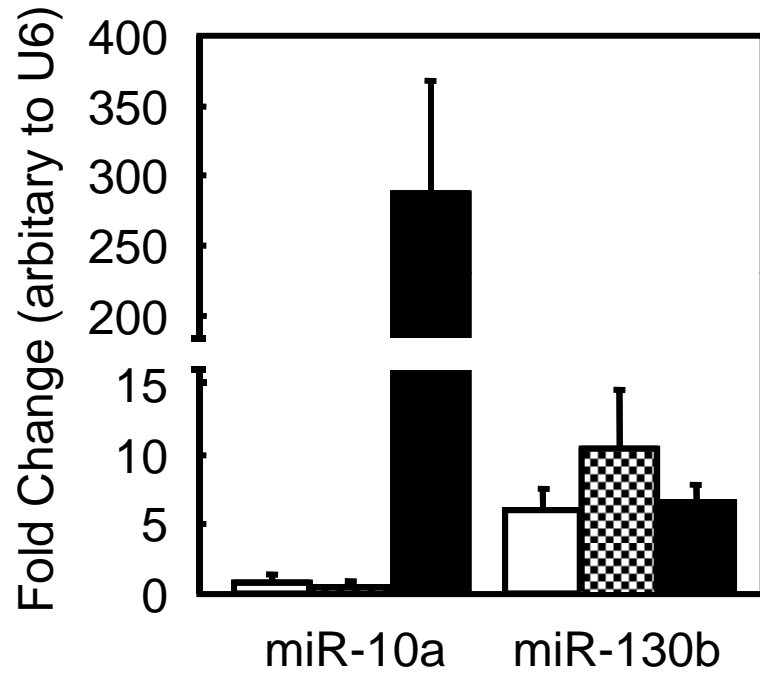
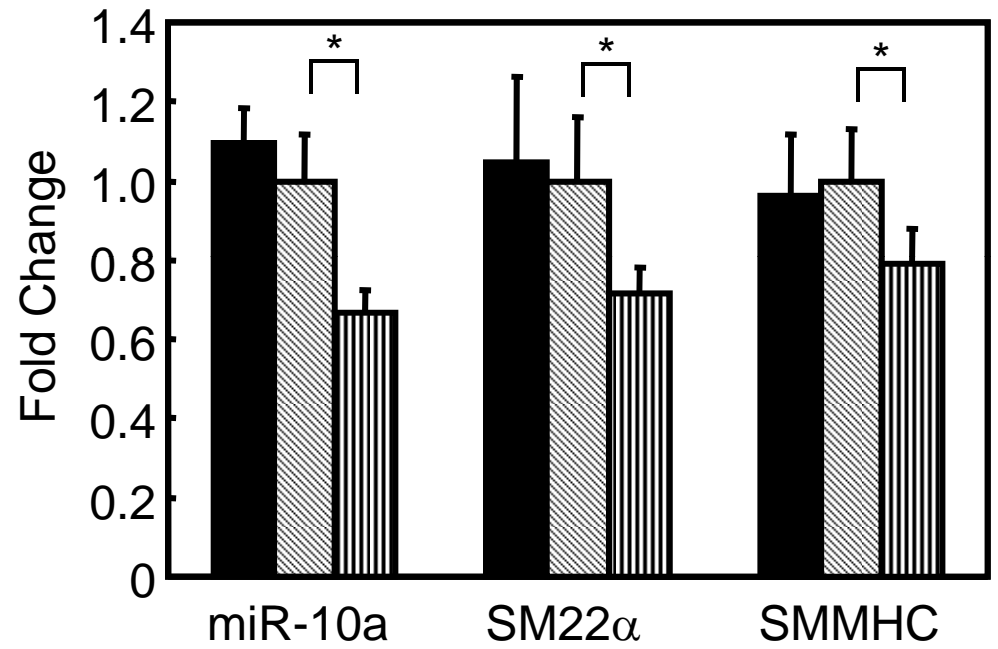


S1

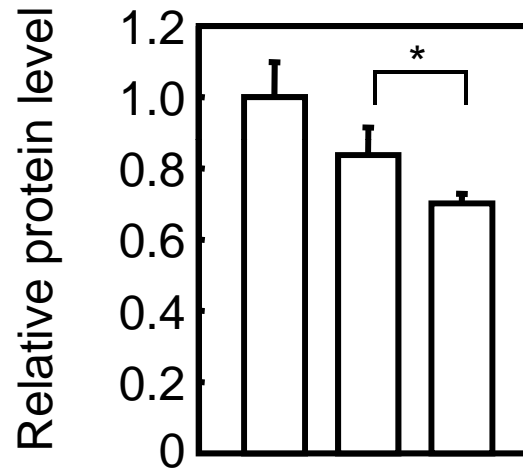
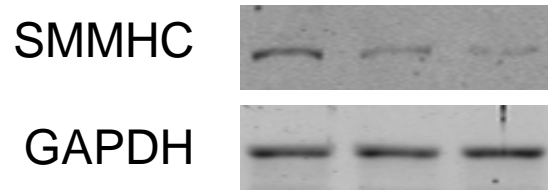




S3A**S3B**

□ A404 ▣ Vehicle ■ RA
▨ RA+Inhibitor NC ▤ RA+miR-10a inhibitor

S3C



RA(10^{-6} M)	+	+	+
Inhibitor NC	-	+	-
miR-10a inhibitor	-	-	+

S4A

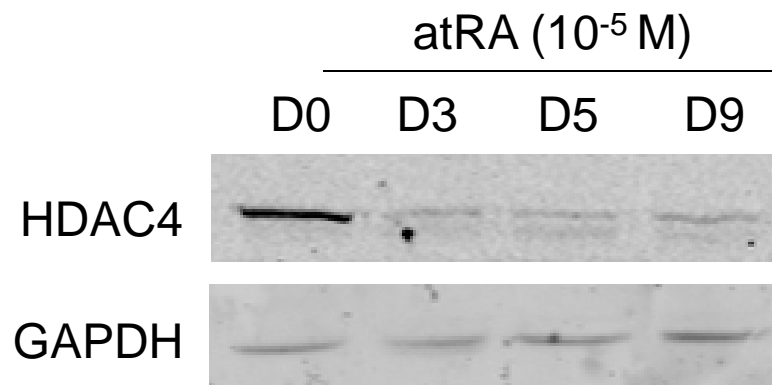


HDAC4 Wt 2321-2327 5'AAUUUGGUGGCAUUUACAGGGUA...

HDAC4 Mut 2321-2327 5'AAUUUGGUGGCAUUUACA**AAA**UA...

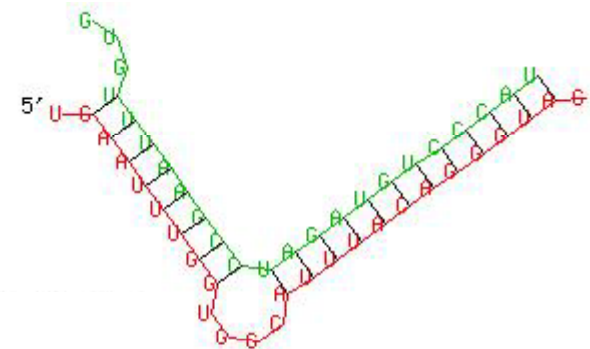
Mmu-miR-10a 3' UGUGUUUAAGCCAAGA--UGUCCCAU

S4C

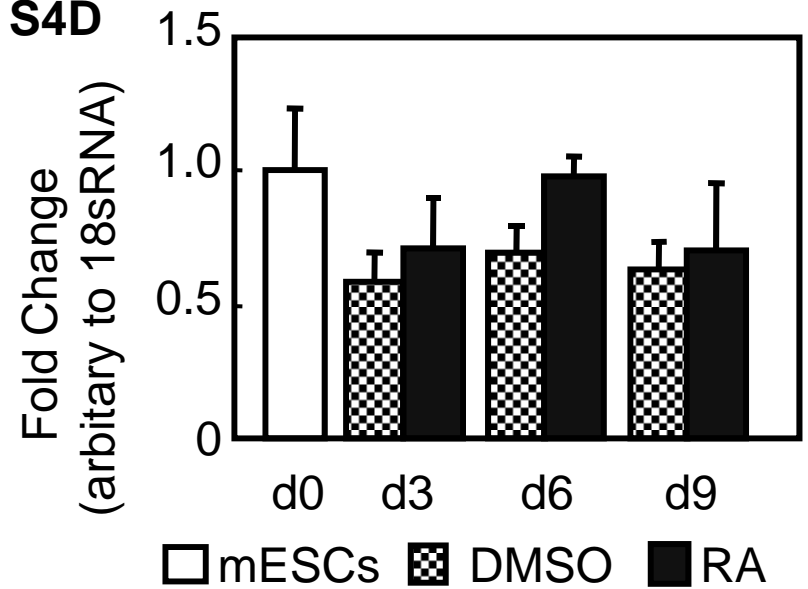


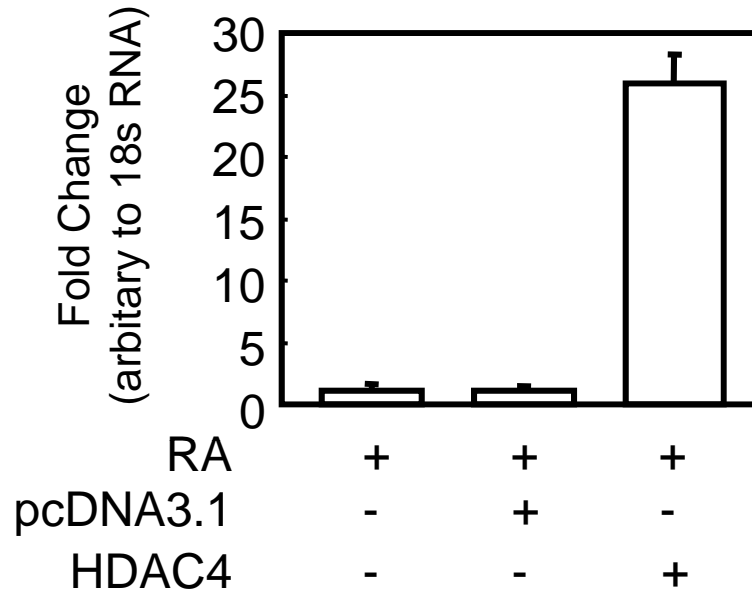
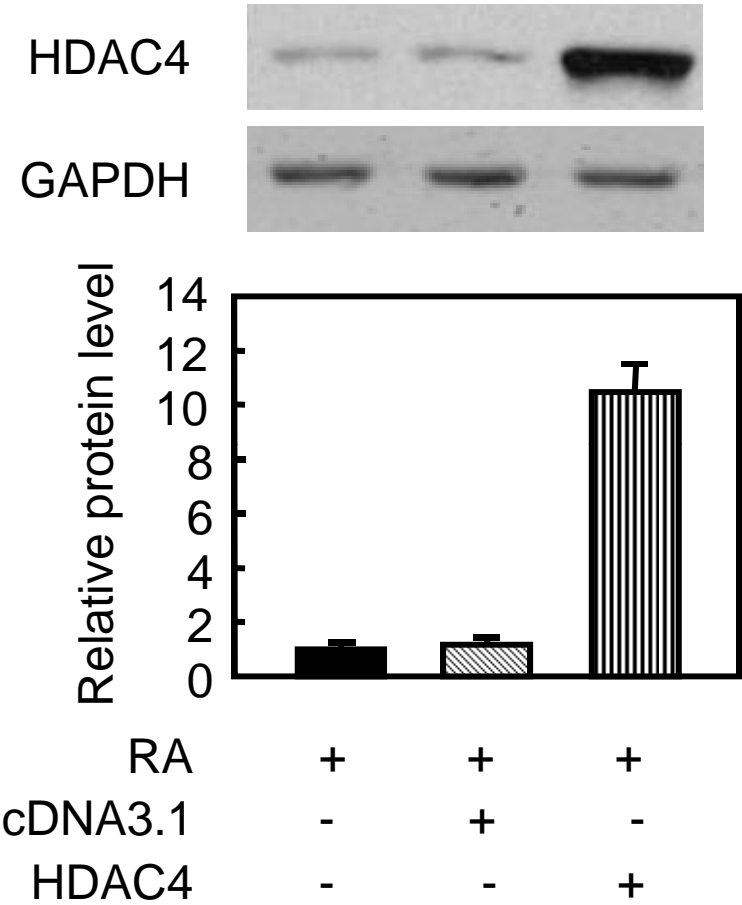
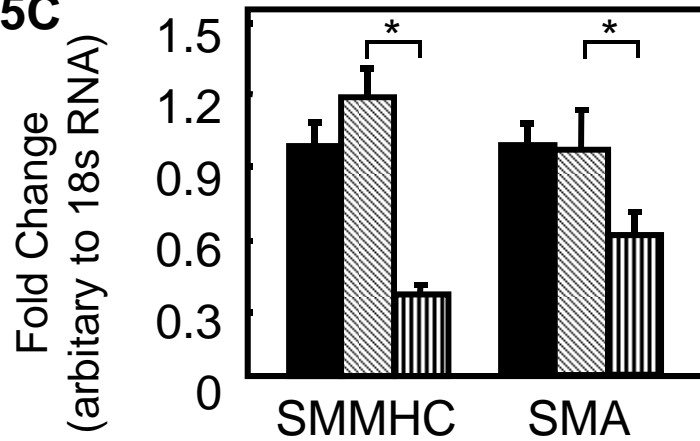
S4B

mfe: -29.1 kcal/mol



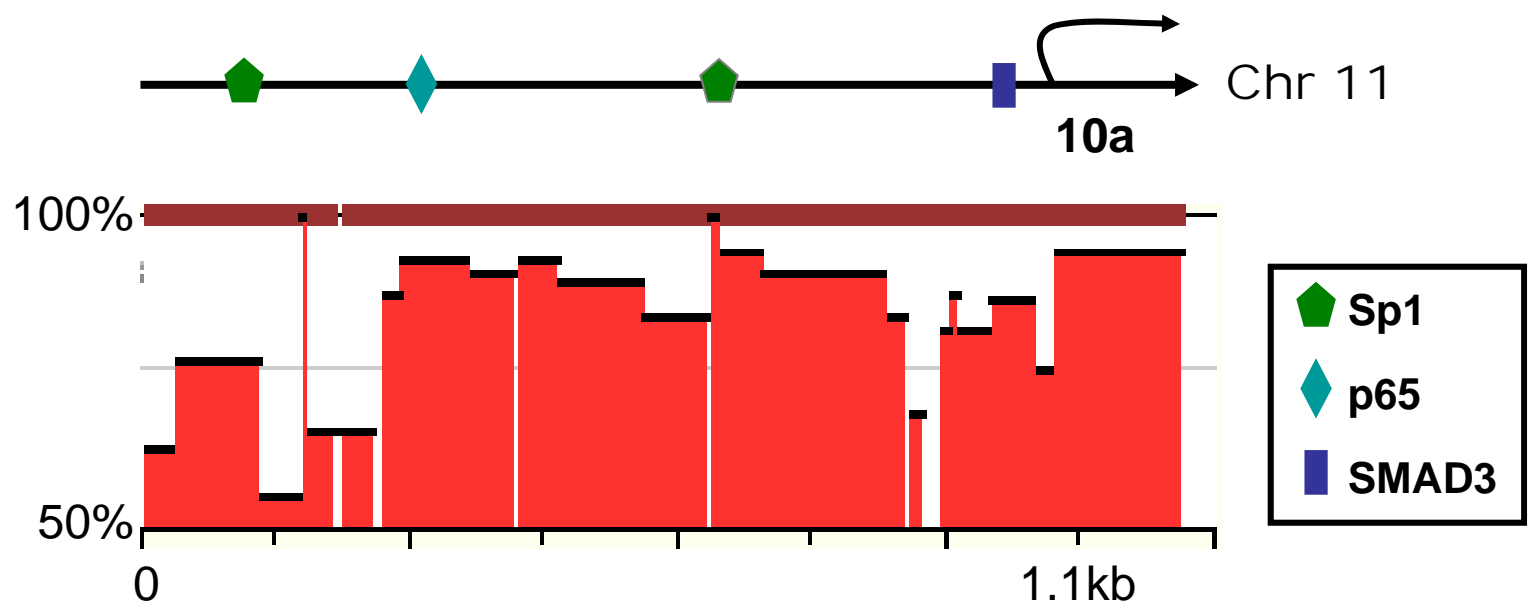
S4D



S5A**S5B****S5C**

■ RA ▨ RA+pcDNA3.1 ▤ RA+HDAC4

S6A



S6B

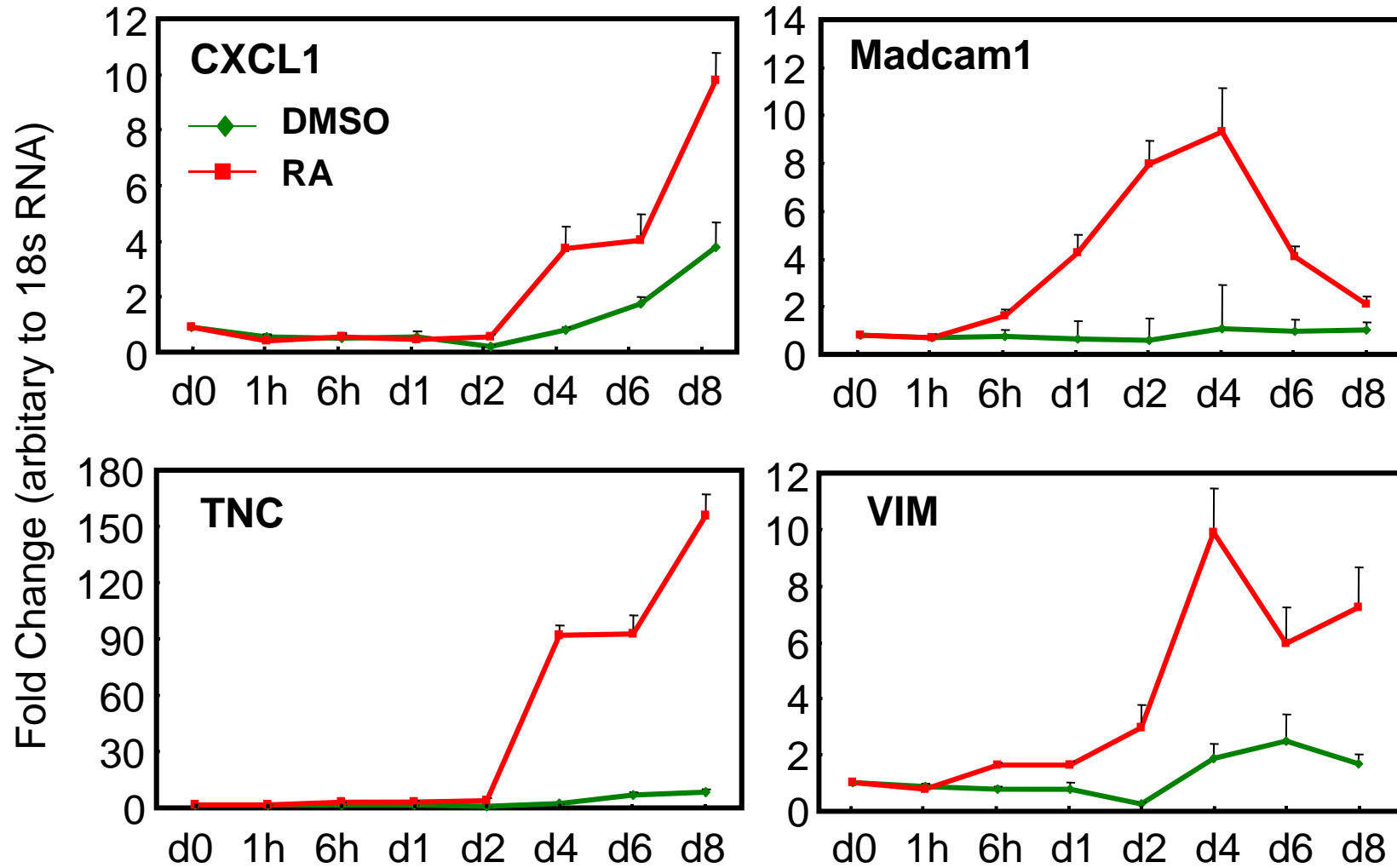


Table S1: Primers used in this paper

Gene	Primer Sequence	Sequence ID	Product Size (bp)
18S RNA	forward: 5'-ggaagggcaccaccaggagt-3' reverse: 5'-tgcagccccggacatctaag-3'	NR_003278	317
Cnn2	forward: 5'- gtgtgggctttggggtttc-3' reverse: 5'- gaggcattggtgggtgagga-3'	NM_007725	163
Cxcl1	forward: 5'- gtgtgggaggctgtgtttgta-3' reverse: 5'- gagcgagacgagaccaggag-3'	NM_008176	113
Madcam1	forward: 5'- ggcgacctggcaacctacc-3' reverse: 5'- aagcagccccagcaccaa-3'	NM_013591	207
SM22 α	forward: 5'-gatggaacaggtggctcaat-3' reverse: 5'-tatgctcctgggctttcttc-3'	NM_011526	210
SM- α -actin	forward: 5'-ggcatccacgaaaccacctat-3' reverse: 5'-agccaccgatccagacagagta-3'	NM_007392	214
Tnc	forward: 5'- ggggcccagagaaaagaa-3' reverse: 5'- gaaccaccaagagaagtaaaa-3'	NM_011607	249
Vim	forward: 5'- acccactcaaaaagaacactcc-3' reverse: 5'- atctatcttgcgctcctgaaa-3'	NM_011701	214

Table S2: List of miRNAs with more than 3 fold changes in expression level after RA-induced SMC differentiation for 3 days from mESCs

miRNAs	Fold change (log2)
miR-10a	4.4
miR-338	3.4
miR-1	3.0
miR-133a	2.7
miR-23a	1.9
miR-155	1.8
miR-199a	1.7
miR-100	1.7
miR-99a	1.7
miR-335	1.6
miR-196b	1.6
miR-103	-2
miR-290	-2
miR-423	-2
miR-328	-3
miR-295	-4
miR-130b	-4
miR-302a	-5