



Supplementary materials

Table S1. Gene symbols of 10 genes with the largest change expression for RA in 7th day of culture. Fold change in expression ratio, and corrected *p*-values of studied genes.

7D/0H

Gene symbol	Gene name	Ratio	Adj. p.val
SFRP2	secreted frizzled-related protein 2	91.25	<0.05
PRRX1	paired related homeobox 1	73.53	<0.05
DDAH1	dimethylarginine dimethylaminohydrolase 1	43.57	<0.05
ACTA2	actin, alpha 2	28.73	<0.05
CCL2	chemokine (C-C motif) ligand 2	25.94	<0.05
TNNC1	troponin C type 1	-147.83	<0.05
MYH7	myosin, heavy chain 7	-148.79	<0.05
NEBL	nebulette	-151.20	<0.05
MYL3	myosin, light chain 3	-194.43	<0.05
ACTC1	actin, alpha 1	-393.86	<0.05

Table S2. Gene symbols of 10 genes with the largest change expression for RA in 15th day of culture. Fold change in expression ratio, and corrected *p*-values of studied genes.

15D/0H

Gene symbol	Gene name	Ratio	Adj. p.val
PRRX1	paired related homeobox 1	58.05	<0.05
SFRP2	secreted frizzled-related protein 2	45.92	<0.05
CCL2	chemokine (C-C motif) ligand 2	45.80	<0.05
DDAH1	dimethylarginine dimethylaminohydrolase 1	37.06	<0.05
IL6	interleukin 6	34.39	<0.05
ACTN2	actinin, alpha 2	-129.43	<0.05
NEBL	nebulette	-141.50	<0.05
MYH7	myosin, heavy chain 7	-178.28	<0.05
MYL3	myosin, light chain 3	-206.79	<0.05
ACTC1	actin, alpha 1	-422.99	<0.05

Table S3. Gene symbols of 10 genes with the largest change expression for RA in 30th day of culture. Fold change in expression ratio, and corrected *p*-values of studied genes.**30D/0H**

Gene symbol	Gene name	Ratio	Adj. p.val
PRRX1	paired related homeobox 1	55.31	<0.05
CCL2	chemokine (C-C motif) ligand 2	49.71	<0.05
IL6	interleukin 6	48.55	<0.05
SFRP2	secreted frizzled-related protein 2	32.02	<0.05
ROBO1	roundabout, axon guidance receptor, homolog 1	26.25	<0.05
NEBL	nebulette	-124.15	<0.05
TNNC1	troponin C type 1	-145.36	<0.05
MYH7	myosin, heavy chain 7	-161.04	<0.05
MYL3	myosin, light chain 3	-219.07	<0.05
ACTC1	actin, alpha 1	-434.00	<0.05

Table S4. Gene symbols of 10 genes with the largest change expression for RAA in 7th day of culture. Fold change in expression ratio, and corrected *p*-values of studied genes.**7D/0H**

Gene symbol	Gene name	Ratio	Adj. p.val
SFRP2	secreted frizzled-related protein 2	61.20	<0.05
DDAH1	dimethylarginine dimethylaminohydrolase 1	33.90	<0.05
LOX	lysyl oxidase	29.19	<0.05
FLRT3	fibronectin leucine rich transmembrane protein 3	28.99	<0.05
PRRX1	paired related homeobox 1	24.28	<0.05
MYL3	myosin, light chain 3	-210.94	<0.05
TNNC1	troponin C type 1	-211.77	<0.05
NPPA	natriuretic peptide A	-222.81	<0.05
MYH7	myosin, heavy chain 7	-256.41	<0.05
ACTC1	actin, alpha 1	-490.06	<0.05

Table S5. Gene symbols of 10 genes with the largest change expression for RAA in 15th day of culture. Fold change in expression ratio, and corrected *p*-values of studied genes.**15D/0H**

Gene symbol	Gene name	Ratio	Adj. p.val
SFRP2	secreted frizzled-related protein 2	114.50	<0.05
DDAH1	dimethylarginine dimethylaminohydrolase 1	52.44	<0.05
LOX	lysyl oxidase	47.26	<0.05
PRRX1	paired related homeobox 1	33.32	<0.05
ROBO1	roundabout, axon guidance receptor, homolog 1	32.19	<0.05
NPPA	natriuretic peptide A	-196.25	<0.05
MYH7	myosin, heavy chain 7	-205.85	<0.05
BMP10	bone morphogenetic protein 10	-207.29	<0.05
MYL3	myosin, light chain 3	-209.39	<0.05
ACTC1	actin, alpha 1	-510.00	<0.05

Table S6. Gene symbols of 10 genes with the largest change expression for RAA in 30th day of culture. Fold change in expression ratio, and corrected *p*-values of studied genes.**30D/0H**

Gene symbol	Gene name	Ratio	Adj. p.val
SFRP2	secreted frizzled-related protein 2	110.94	<0.05
LOX	lysyl oxidase	59.40	<0.05
DDAH1	dimethylarginine dimethylaminohydrolase 1	50.35	<0.05
IL6	interleukin 6	41.71	<0.05
PRRX1	paired related homeobox 1	34.21	<0.05
NPPA	natriuretic peptide A	-180.49	<0.05
BMP10	bone morphogenetic protein 10	-182.54	<0.05
MYH7	myosin, heavy chain 7	-223.37	<0.05
MYL3	myosin, light chain 3	-231.93	<0.05
ACTC1	actin, alpha 1	-423.15	<0.05