Electronic Supplementary Material (ESI) for Molecular Omics.

Supplementary Table S1. List and sequence of primers for the genes analyzed.

Primer	Sequence	Length
GAPDH F	5'- AAT GGT GAA GGT CGG TGT G - 3'	19
GAPDH R	5'- GTG GAG TCA TAC TGG AAC ATG TAG - 3'	24
β- ACTIN F	5'- CTG AAC CCT AAG GCC AAC C - 3'	19
β- ACTIN R	5'- GTA CGA CCA GAG GCA TAC AG - 3'	20
OCT4 F	5'- GGC ACT TCA GAA ACA TGG TCT - 3'	21
OCT4 R	5'- GAA GCC GAC AAC AAT GAG AAC - 3'	21
Nanog F	5'- AGC CGT TGG CCT TCA GAT AG - 3'	20
Nanog R	5'- AAG TCA GAA GGA AGT GAG CCG - 3'	21
WNT8A F	5'- TTC CAA GTC ACC CAT GCT G - 3'	19
WNT8A R	5'- GCT TTT CAG TTT TCA ACC CAC A - 3'	22
WNT1 F	5'- GGA GGT GAT TGC GAA GAT GA - 3'	20
WNT1 R	5'- CAA ATG GCA ATT CCG AAA CCG - 3'	21
SOX1 F	5'- GGC AGT CAT ACA AAA GTT GGC - 3'	21
SOX1 R	5'- GTA CAG TAT TTA TCG TCC GCA GA - 3'	23
CDH2 F	5'- CTG CGC TGT AAA CAT CTT CAG - 3'	21
CDH2 R	5'- CTC CAT GTG CCG GAT AGC - 3'	18

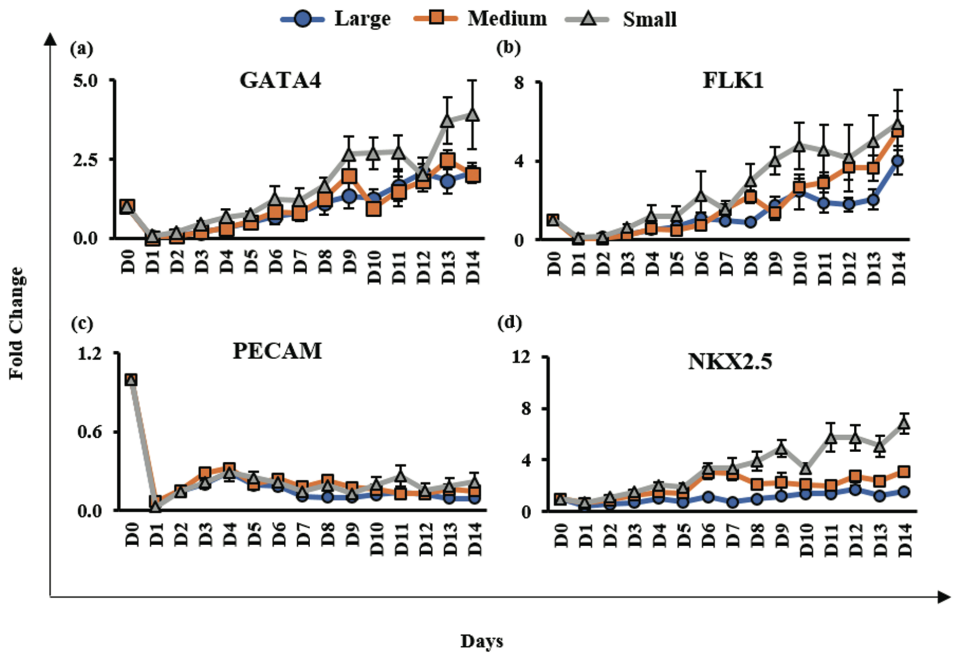
NESTIN F	**5’- GGA AAG CCA AGA GAA GCC T - 3’**	**19**
NESTIN R	**5’- CAC CTC AAG ATG TCC CTT AGT C - 3’**	**22**
NCAM F	**5’- TTC AAG ACA CAG CCA GTC CG - 3’**	**20**
NCAM R	**5’- TGA TGG AGT TCC CGT CCT CT - 3’**	**20**
TuJ F	**5’- TCC GAG TAC CAG CAG TAC CA - 3’**	**20**
TuJ R	**5’- GGC TTC CGA TTC CTC GTC AT - 3’**	**20**
PAX6 F	**5’- GAT CTC ACA CAT CTG CTC ACC - 3’**	**21**
PAX6 R	**5’- CCC ACA ACT CTA TCT TGC GAA - 3’**	**21**
NOTCH1 F	**5’- CCC GCT GTG AGA TTG ATG TTA - 3’**	**21**
NOTCH1 R	**5’- CAC CTT CAT AAC CTG GCA TAC A - 3’**	**22**
NOTCH2 F	**5’- CAC CAT CCA CAC AAA CTC CT - 3’**	**20**
NOTCH2 R	**5’- CGA CTT CAC TTT CGA ATG CAA C - 3’**	**22**
NOTCH3 F	**5’- TCA TTG ATC TCC ACG TTG CAG - 3’**	**21**
NOTCH3 R	**5’- CTT TGG AGT TTG CCG TGA TG - 3’**	**20**
GAP43 F	**5’- AGG AGG AGA AAG ACG CTG TA - 3’**	**20**
GAP43 R	**5’- TCA GGC ATG TTC TTG GTC AG - 3’**	**20**
NeuN F	**5’- CTT ATG GAG CGG TCG TGT ATC - 3’**	**21**
NeuN R	**5’- GCT GGC TGA GCA TAT CTG TAA - 3’**	**21**
MAP2 F	**5’- GTG ACT TTA TCC TTC GCC TGT - 3’**	**21**

MAP2 R	**5’- AAC AGC TAA TCT GCC ACC TTC - 3’**	**21**
TH F	**5’- CTG GAT ACG AGA GGC ATA GTT C - 3’**	**22**
TH R	**5’- CCC TAC CAA GAT CAA ACC TAC C - 3’**	**22**
GFAP F	**5’- GCG ATA GTC GTT AGC TTC GTG - 3’**	**21**
GFAP R	**5’- CCA CCA GTA ACA TGC AAG AGA - 3’**	**21**
SYNAPTOPHYSIN F	**5’- TTT GGA GGG TGA GCG AAA TG - 3’**	**20**
SYNAPTOPHYSIN R	**5’- AGA GAA AGG GTG GAG AAG GTA G - 3’**	**22**
OLIG F	**5’- TCC AGA CTT CTC TCC CAG AC - 3’**	**20**
OLIG R	**5’- AGC AAC TAC ATC GCT CCT TG - 3’**	**20**
CHAT F	**5’- AGT CAG TGG GAA TGG ATT GG - 3’**	**20**
CHAT R	**5’- TTC CAA GAC ACC AAT GAC CAG - 3’**	**21**
GAD1 F	**5’- CTT GGC GTA GAG GTA ATC AGC - 3’**	**21**
GAD1 R	**5’- GGA CAT CTT CAA GTT CTG GCT - 3’**	**21**
NKX2-5 F	**5’- CAG CTC CAC TGC CTT CTG - 3’**	**18**
NKX2-5 R	**5’- CCA AGT GCT CTC CTG CTT T - 3’**	**19**
GATA4 F	**5’- ACG GAA GCC CAA GAA CCT GA - 3’**	**20**
GATA4 R	**5’- AGC TGC TGT GCC CAT AGT GA - 3’**	**20**
FLK1 F	**5’- CTA CCT CAC CTG TTT CCT GTA TG - 3’**	**23**
FLK1 R	**5’- GGC TCT TTC GCT TAC TGT TCT - 3’**	**21**

PECAM1 F	**5’- TGT TGG AGT TCA GAA GTG GAG - 3’**	**21**
PECAM1 R	**5’- TCA TTG GAG TGG TCA TCG C - 3’**	**19**

Abbreviations:

GAPDH: Glyceraldehyde 3-phosphate dehydrogenase; Oct4: Octamer binding transcription factor 4; Wnt: Wingless type MMTV integration site family memer; Sox1: Sex determining region Y-box1; Pax6: Paired box protein 6; CDH2: Cadherin 2; NCAM: Neural cell adhesion molecule; Tuj: class III β tubulin; GAD1: Glutamate decarboxylase 1; NeuN: Neuronal nucleus antigen; TH: Tyrosine Hydroxylase; ChAT: Choline Acetyltransferase, MAP2: Microtubule associated protein 2; GAP43: Growth associated protein 43; GFAP: Glial fibrillary acidic protein; OLIG1: Oligodendrocyte transcription factor 1; NKX 2-5: NK2 homeobox 5; GATA4: GATA binding protein 4; FLK1: Fetal liver kinase 1, PECAM: Platelet endothelial cell adhesion molecule; F: forward sequence; R: Reverse sequence.



Supplementary Figure S1. mRNA fold change values of mesodermal markers during the two-week culture period.