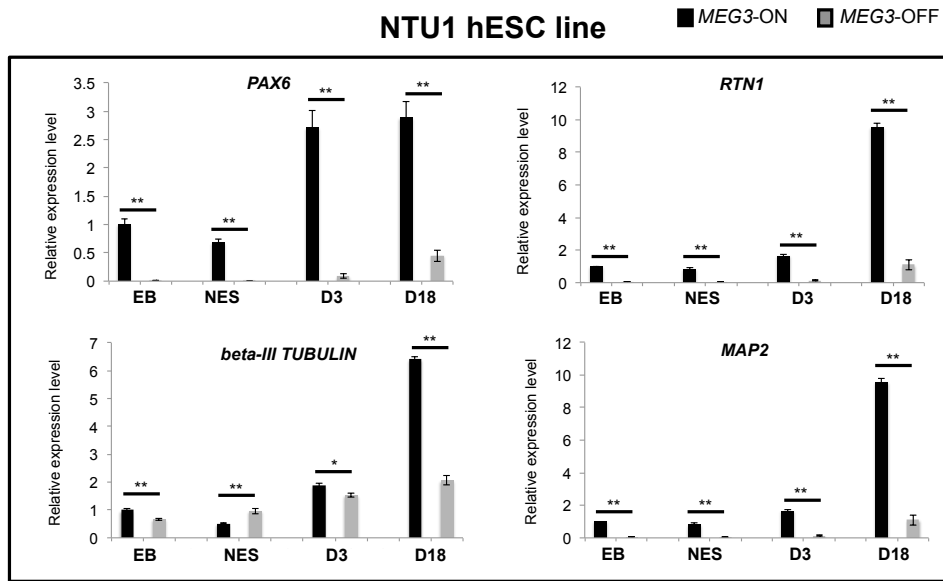
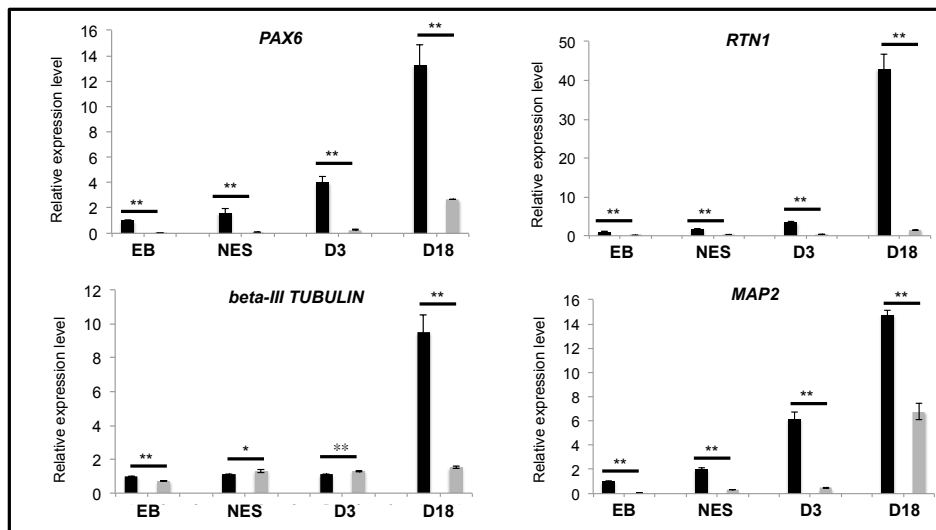


**Figure S4**

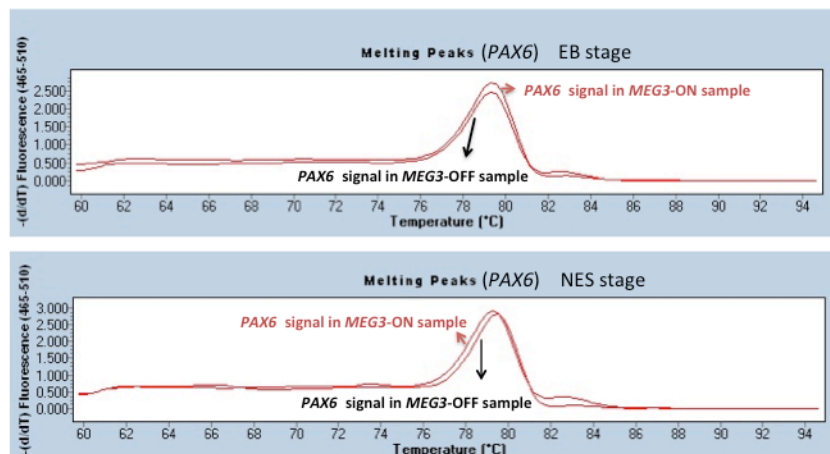
**A**



**NTU3 hESC line**



**B**



**Figure S4. Most neural lineage markers were expressed at lower levels in *MEG3-OFF* hESCs- derived cells throughout differentiation.**

(A) Significantly higher expression levels of *PAX6*, *RTN1* and *MAP2* were detected

In NTU1 and NTU3 *MEG3-ON* hESC-derived cells compared with the *MEG3-OFF* groups throughout the process of neural lineage differentiation. *beta-III TUBULIN* was also significantly upregulated in NTU1 cells derived from *MEG3-ON* hESCs compared with the *MEG3-OFF* groups at the EB stage, at both 3 days and 18 days after attachment; however, *beta-III TUBULIN* was upregulated in the *MEG3-OFF* group at the NES stage. *beta-III TUBULIN* was also detected in NTU3 lines and was upregulated in *MEG3-ON* groups at 18 days after attachment but not at the NES stage or at 3 days after attachment. The quantitation of mRNA expression was performed using the  $2^{-\Delta\Delta C_p}$  method (using the housekeeping gene *GAPDH* for normalization). Error bars represent the SEM generated from 2 biological samples with 3 technical repeats each. \* $P < 0.05$ , \*\*  $P < 0.01$  compared with the corresponding *MEG3-ON* groups by Student's *t*-test.

(B) The melting curves of *PAX6* gene that was significantly expressed at lower but detectable levels in *MEG3-OFF* hESC-differentiated cells at the EB and NES stages.