



**S10 Fig: Neurite length and number of cultured cortical neurons are unaffected by loss of PHF6**

(A) Representative images from E16.5 *Phf6<sup>lox/Y</sup>;Nes-cre<sup>Tg/+</sup>* vs. *Phf6<sup>+Y</sup>;Nes-cre<sup>Tg/+</sup>* cultured cortical neurons showing staining with anti-beta III tubulin and DAPI.

Scale bar = 21.25  $\mu$ m.

(B) Enumerations of the numbers of primary, secondary and tertiary neurites per neuron in control and *Phf6*-deleted cultured cortical neurons. No significant difference was detected.

(C) Quantification of the length of primary, secondary and tertiary neurites in *Phf6<sup>lox/Y</sup>;Nes-cre<sup>Tg/+</sup>* vs. *Phf6<sup>+Y</sup>;Nes-cre<sup>Tg/+</sup>* cultured cortical neurons. No significant difference was detected.

N = 4 *Phf6<sup>lox/Y</sup>;Nes-cre<sup>Tg/+</sup>* vs. 4 *Phf6<sup>+Y</sup>;Nes-cre<sup>Tg/+</sup>* foetuses. Data are displayed mean  $\pm$  sem. Circles represent individual mouse foetuses. Data were analysed by using a two-tailed Student's t-test.