Supplementary Figures

Reduced cell size, chromosomal aberration and altered proliferation rates are characteristics and confounding factors in the STHdh cell model of Huntington disease

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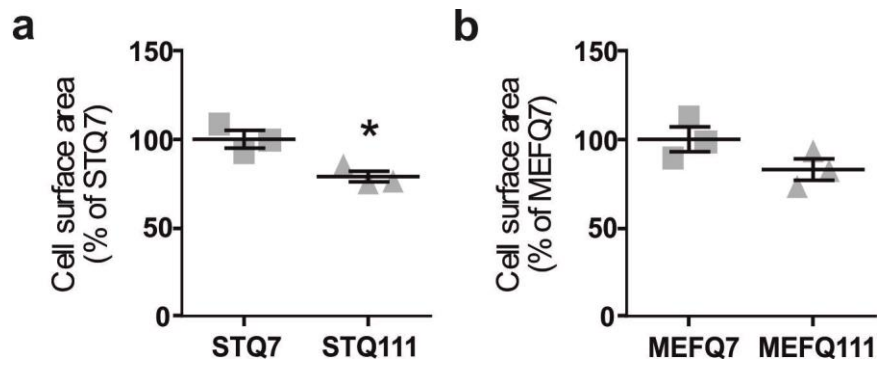
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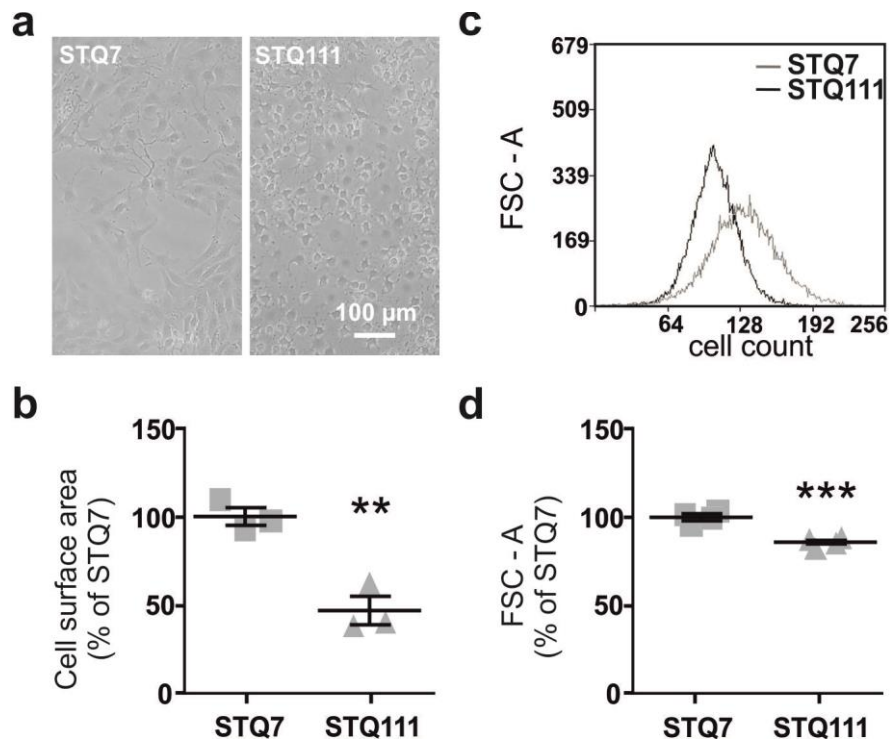**Supplementary Figure S1: Cell size differences of detached cells can be manually determined in ST*Hdh* cells**

(a) ImageJ-based cell surface area quantification of ST*Hdh*$^{Q7/Q7}$ (STQ7) and ST*Hdh*$^{Q111/Q111}$ (STQ111) cells, detached from the culture dish by gentle trypzination, taken from cell suspension loaded to a Neubauer chamber; n = 3 experiments, each with 3 replicates per cell line, unpaired *t*-tests; * $P < 0.05$ 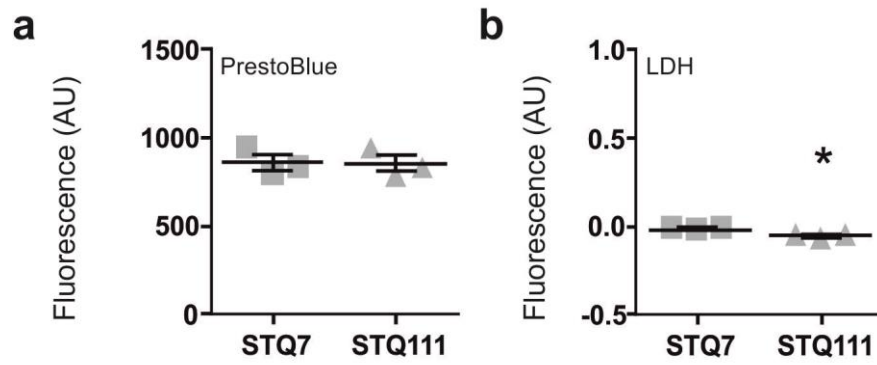**(b)** ImageJ-based cell surface area quantification of detached MEF*Hdh*$^{Q7/Q7}$ (MEFQ7) and MEF*Hdh*$^{Q111/Q111}$ (MEFQ111) cells; n = 3 experiments, unpaired *t*-test.
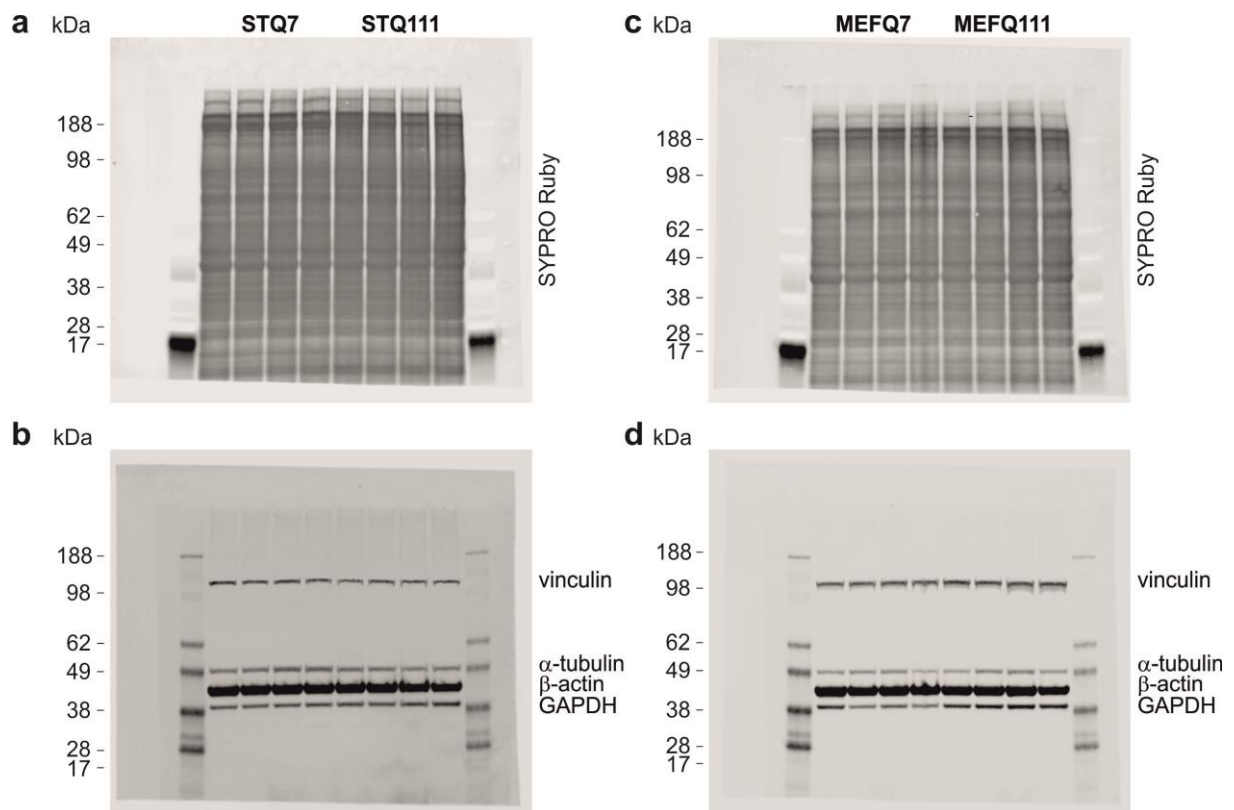
Supplementary Figure S2: Neuron- like, differentiated ST*Hdh* cells show the same cell size phenotype

(a) Representative picture of live, differentiated ST$Hdh^{Q7/Q7}$ (STQ7) and ST$Hdh^{Q111/Q111}$ (STQ111) cells and **(b)** ImageJ-based cell surface area quantification of the somata of cells, attached to the culture dish after 48 hours of differentiation; n=3 experiments, unpaired *t*-tests; ** $P < 0.01$ **(c)** Representative histograms of ST*Hdh* cells with corresponding **(d)** quantification of the cell size of live cells in suspension, based on the relative mean forward scatter area (FSC-A); n = 4 experiments, unpaired *t*-tests; *** $P < 0.001$.

Supplementary Figure S3: Differentiation into neuron-like cells results in comparable results between ST*Hdh* and MEF*Hdh* cells

Results from the cell size- and cell number-dependent tests for 24 hours differentiated ST*Hdh* cells: **(a)** PrestoBlue®, n = 3 experiments and **(b)** LDH assay, n = 3 experiments. Unpaired *t*-tests; * $P < 0.05$.

Supplementary Figure S4: Chromosomal abnormalities impede the interpretation of western blot results in ST*Hdh* cells

Full-length blots of **(a)** SYPRO Ruby staining and **(b)** analysed proteins from ST*Hdh* cell lysates **(c and d)** respective results from MEF*Hdh* cell lysates.