

Retina-specific laminin-based generation of photoreceptor progenitors from human pluripotent stem cells under xeno-free and chemically defined conditions

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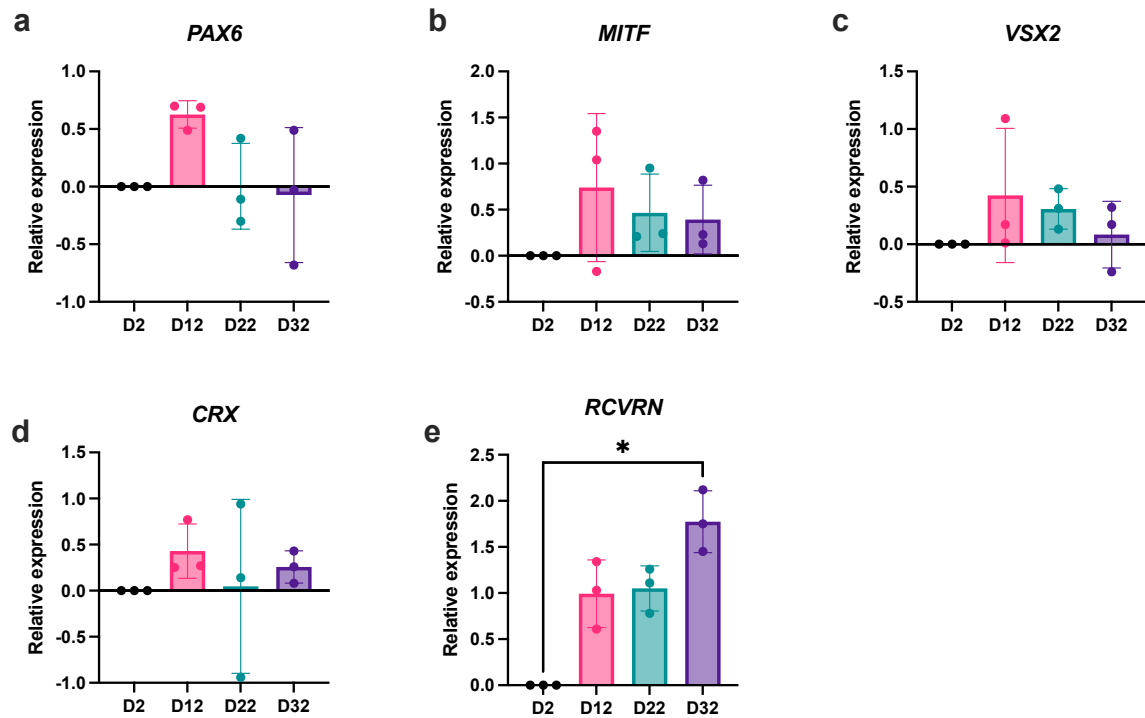


Figure S.1. Transcriptomic profile of failed batches of hESCs-derived photoreceptor progenitors validated by qPCR. There were no significant increase expression of early eye field and optic vesicle markers *PAX6* (A), optic cup stage markers *MITF* (B) and *VSX2* (C) and photoreceptor progenitor marker *CRX* (D). By Day(D)32, photoreceptor progenitor marker *RCVRN* (E) were upregulated. Data are presented by mean $\pm$ SEM analysed by one-way ANOVA, n=3. * P<0.05.

Genes	Primer sequences (5' to 3')
<i>ACTB</i>	Forward: ATTGGCAATGAGCGGTTC Reverse: GGA TGC CAC AGG ACT CCA
<i>PAX6</i>	Forward: TCA CCA TGG CAA ATA ACC TG Reverse: CAG CAT GCA GGA GTA TGA GG
<i>MITF</i>	Forward: AGA GTC TGA AGC AAG AGC ACT G Reverse: TGC GGT CAT TTA TGT TAA ATC TTC
<i>CRX</i>	Forward: TTG GAA TTC AAG GAC CCC AC Reverse: CTA CAA GAT CTG AAA CTT CC
<i>RCVRN</i>	Forward: TAA CGG GAC CAT CAG CAA G Reverse: CCT CGG GAG TGA TCA TTT TG
<i>VSX2</i>	Qiagen, cat. No. PPH21884C-200

Table S.1. Oligonucleotides used for qPCR

Antibody	Cat. No.	Timepoint of expression
PAX6	Developmental Studies Hybridoma Bank	Day 22
MITF	ExAlpha, X2398M	Day 22
VSX2	ExAlpha, X1180P	Day 22
CRX	Abnova, H00001406-M02 Thermo Fisher, PA5-47897	Day 32
RCVRN	Millipore, AB5585	Day 32

Table S.2. Immunohistochemistry diagnostic criteria for successful differentiation of retinal cultures at various timepoints.