

Materials List for

# Sub-Retinal Delivery of Human Embryonic Stem Cell Derived Photoreceptor Progenitors in *rd10* Mice

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## Materials

Name	Company	Catalog Number	Comments
0.3% Tobramycin	Novartis	NDC 0078-0813-01	Tobrex (3.5 g)
0.3% Tobramycin and 0.1% Dexamethasone	Novartis	NDC 0078-0876-01	Tobradex (3.5 g)
0.5% Proparacaine hydrochloride	Alcon	NDC 0998-0016-15	0.5% Alcaine (15 mL)
1 mL Tuberculin syringe	Turemo	SS01T2713	
1% Tropicamide	Alcon	NDC 0998-0355-15	1% Mydracil (15 mL)
2.5% Phenylephrine hydrochloride	Alcon	NDC 0998-0342-05	2.5% Mydrin (5 mL)
24-well tissue culture plate	Costar	3526	
30 G Disposable needle	Becton Dickinson (BD)	305128	
33 G, 20 mm length blunt needles	Hamilton	7803-05	
Automated Cell Counter	NanoEnTek	Model: Eve	
B27 without Vitamin A	Life Technologies	12587001	2% <sup>36</sup>
Buprenorphine	Ceva		Vetergesic vet (0.3 mg/mL)
CKI-7	Sigma	C0742	5 $\mu$ M <sup>36</sup>
Cyclosporine	Novartis		260 g/L in drinking water
Day 32 hESC-derived photoreceptor progenitor cells	DUKE-NUS Medical School		Human embryonic stem cells are differentiated for 32 days. See protocol in Ref 36.
Gauze	Winner Industries Co. Ltd.	1SNW475-4	
Glasgow Minimum Essential Medium	Gibco	11710-035	
hESC cell line H1	WiCell Research Institute	WA01	
Human brain-derived neurotrophic factor (BDNF)	Peptotech	450-02-50	10 ng/mL <sup>36</sup>
Human ciliary neurotrophic factor (CNTF)	Prospec-Tany Technogene	CYT-272	10 ng/mL <sup>36</sup>
Ketamine hydrochloride (100 mg/mL)	Ceva Santé Animale	KETALAB03	

LN-521	Biolamina	LN521-02	1 $\mu\text{g}$ <sup>36</sup>
mFreSR	STEMCELL Technologies	5854	
Microlitre glass syringe (10 mL)	Hamilton	7653-01	
N-[N-(3,5-difluorophenacetyl-L-alanyl)]-S-phenylglycine t-butyl ester (DAPT)	Selleckchem	S2215	10 $\mu\text{M}$ <sup>36</sup>
N-2 supplement	Life Technologies	A13707-01	1% <sup>36</sup>
Non-essential amino acids (NEAA)	Gibco	11140-050	1x <sup>36</sup>
NutriStem XF Media	Satorius	05-100-1A	
Operating microscope	Zeiss	OPMI LUMERA 700	With Built-in iOCT function
PRDM (Photoreceptor differentiation medium, 50ml)	DUKE-NUS Medical School		See media composition <sup>36</sup> . Basal Medium, 10 $\mu\text{M}$ DAPT, 10 ng/mL BDNF, 10 ng/mL CNTF, 0.5 $\mu\text{M}$ Retinoic acid, 2% B27 and 1% N2. Basal Medium: 1x GMEM, 1 mM sodium pyruvate, 0.1 mM $\beta$ -mercaptoethanol, 1x Non-essential amino acids (NEAA).
Pyruvate	Gibco	11360-070	1 mM <sup>36</sup>
Rd10 mice	Jackson Laboratory	B6.CXB1-Pde6brd10/J mice	Gender: male/female, Age: P20 (injection), Weight: 3-6 g
Retinoic acid	Tocris Bioscience	0695/50	0.5 $\mu\text{M}$ <sup>36</sup>
Round Cover Slip (12 mm)	Fisher Scientific	12-545-80	
SB431542	Sigma	S4317	0.5 $\mu\text{M}$ <sup>36</sup>
Vidisc Gel (10 g)	Dr. Gerhard Mann		
Xylazine hydrochloride (20 mg/mL)	Troy Laboratories	LI0605	
$\beta$ -mercaptoethanol	Life Technologies	21985-023	0.1 mM <sup>36</sup>