

Materials List for

Three-Dimensional, Serum-Free Culture System for Lacrimal Gland Stem Cells

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Materials

Name	Company	Catalog Number	Comments
<i>Animal(Mouse)</i>			
Bal B/C	Model Animal Research Center of Nanjing University		
C57 BL/6J	Laboratory Animal Center of Sun Yat-sen University		
NOD/ShiLtJ	Model Animal Research Center of Nanjing University		
ROSA26 ^{mT/mG}	Model Animal Research Center of Nanjing University		
<i>Equipment</i>			
Analytical balance	Sartorius		
Automatic dehydrator	Thermo		
Blood counting chamber	BLAU		
Cell Counter	CountStar		
CO ₂ constant temperature incubator	Thermo		
ECL Gel imaging system	GE healthcare		
Electric bath for water bath	Yiheng Technology		
Electrophoresis apparatus	BioRad		
Fluorescence quantitative PCR instrument	Roche		
Frozen tissue slicer	Lecia		
Horizontal centrifuge	CENCE		
Inverted fluorescence microscope	Nikon		
Inverted microscope	Olympus		
Laser lamellar scanning micrograph	Carl Zeiss		
Liquid nitrogen container	Thermo		
Low temperature high speed centrifuge	Eppendorf		
Micropipettor	Gilson		
Microwave oven	Panasonic		

Nanodrop ultraviolet spectrophotometer	Thermo	measure RNA concentration	
Paraffin slicing machine	Thermo		
PCR Amplifier	Eppendorf		
pH value tester	Sartorius		
4 °C Refrigerator	Haier		
Thermostatic culture oscillator	ZHICHENG		
Tissue paraffin embedding instrument	Thermo		
-80°C Ultra-low temperature refrigerator	Thermo		
-20°C Ultra-low temperature refrigerator	Thermo		
Ultra pure water purification system	ELGA		
<i>Reagent</i>			
Animal Experiment			
HCG	Sigma	9002-61-3	
PMSG	Sigma	14158-65-7	
Pentobarbital Sodium	Sigma	57-33-0	
Cell Culture			
B27	Gibco	17504044	
Collagenase I	Gibco	17018029	
Dispase	BD	354235	
DMEM	Sigma	D6429	
DMEM/F12	Sigma	D0697	
DMSO	Sigma	67-68-5	
EDTA	Sangon Biotech	A500895	
Foetal Bovine Serum	Gibco	04-001-1ACS	
GlutaMax	Gibco	35050087	
Human FGF10	PeproTech	100-26	
Matrigel (Matrix gel)	BD	356231	
Murine Noggin	PeproTech	250-38	
Murine Wnt3A	PeproTech	315-20	
Murine EGF	PeproTech	315-09	
NEAA	Gibco	11140050	
N2	Gibco	17502048	
R-spondin 1	PeproTech	120-38	
Trypsin Inhibitor (TI)	Sigma	T6522	Derived from <i>Glycine max</i> ; can inhibit trypsin, chymotrypsin, and plasminase to a lesser extent. One mg will inhibit 1.0-3.0 mg of trypsin.
Trypsin	Sigma	T4799	
Y-27632	Selleck	S1049	
HE staining & Immunostaining			
Alexa Fluor 488 donkey anti-Mouse IgG	Thermo	A-21202	Used dilution: (IHC) 2 µg/mL, (IF) 0.2 µg/mL
Alexa Fluor 488 donkey anti-Rabbit IgG	Thermo	A-21206	Used dilution: (IHC) 2 µg/mL, (IF) 2 µg/mL
Alexa Fluor 568 donkey anti-Mouse IgG	Thermo	A-10037	Used dilution: (IHC) 2 µg/mL, (IF) 2 µg/mL

Alexa Fluor 568 donkey anti-Rabbit IgG	Thermo	A-10042	Used dilution: (IHC) 2 µg/mL, (IF) 4 µg/mL
Anti-AQP5 rabbit antibody	Abcam	ab104751	Used dilution: (IHC) 1 µg/mL, (IF) 0.1 µg/mL
Anti-E-cadherin Rat antibody	Abcam	ab11512	Used dilution: (IF) 5 µg/mL
Anti-Keratin14 rabbit antibody	Abcam	ab181595	Used dilution: (IHC) 1 µg/mL, (IF) 2 µg/mL
Anti-Ki67 rabbit antibody	Abcam	ab15580	Used dilution: (IHC) 1 µg/mL, (IF) 1 µg/mL
Anti-mCherry mouse antibody	Abcam	ab125096	Used dilution: (IHC) 2 µg/mL, (IF) 2 µg/mL
Anti-mCherry rabbit antibody	Abcam	ab167453	Used dilution: (IF) 2 µg/mL
C ₆ H ₈ O ₇	Sangon Biotech	A501702-0500	
Citric Acid	Sangon Biotech	201-069-1	
DAB Kit (20x)	CWBIO	CW0125	
DAPI	Thermo	62248	
Eosin	BASO	68115	
Fluorescent Mounting Medium	Dako	S3023	
Formalin	Sangon Biotech	A501912-0500	
Goat anti-Mouse IgG antibody (HRP)	Abcam	ab6789	Used dilution: 2 µg/mL
Goat anti-Rabbit IgG antibody(HRP)	Abcam	ab6721	Used dilution: 2 µg/mL
Hematoxylin	BASO	517-28-2	
Histogel (Embedding hydrogel)	Thermo	HG-400-012	
30% H ₂ O ₂	Guangzhou Chemistry	KD10	
30% Hydrogen Peroxide Solution	Guangzhou Chemistry	7722-84-1	
Methanol	Guangzhou Chemistry	67-56-1	
Na ₃ C ₆ H ₅ O ₇ ·2H ₂ O	Sangon Biotech	A501293-0500	
Neutral balsam	SHANGHAI YIYANG	YY-Neutral balsam	
Non-immunized Goat Serum	BOSTER	AR0009	
Paraffin	Sangon Biotech	A601891-0500	
Paraformaldehyde	DAMAO	200-001-8	
Saccharose	Guangzhou Chemistry	57-50-1	
Sodium citrate tribasic dihydrate	Sangon Biotech	200-675-3	
Sucrose	Guangzhou Chemistry	IB11-AR-500G	
Tissue-Tek O.T.C. Compound	SAKURA	SAKURA.4583	
Triton X-100	DINGGUO	9002-93-1	
Xylene	Guangzhou Chemistry	128686-03-3	
RT-PCR & qRT-PCR			
Agarose	Sigma	9012-36-6	
Alcohol	Guangzhou Chemistry	64-17-5	
Chloroform	Guangzhou Chemistry	865-49-6	
Ethidium Bromide	Sangon Biotech	214-984-6	
Isopropyl Alcohol	Guangzhou Chemistry	67-63-0	
LightCycler 480 SYBR Green I Master Mix	Roche	488735200H	
ReverTra Ace qPCR RT Master Mix	TOYOBO	-	
Taq DNA Polymerase	TAKARA	R10T1	
Goldview (nucleic acid stain)	BioSharp	BS357A	
TRIzol	Magen	R4801-02	

Vector Construction & Cell Transfection			
Agar	OXID	-	
Ampicillin	Sigma	69-52-3	
Chloramphenicol	Sigma	56-75-7	
Endotoxin-free Plasmid Extraction Kit	Thermo	A36227	
Kanamycin	Sigma	25389-94-0	
Lipo3000 Plasmid Transfection Kit	Thermo	L3000015	
LR Reaction Kit	Thermo	11791019	
Plasmid Extraction Kit	TIANGEN	DP103	
Trans5α Chemically Competent Cell	TRANSGEN	CD201-01	
Trytone	OXID	-	
Yeast Extract	OXID	-	
Primers and Sequence	Company		
Primer: AQP5 Sequence: F: CATGAACCCAGCCCGATCTT R: CTTCTGCTCCCATCCCATCC	Synbio Tech		
Primer: β-actin Sequence: F: AGATCAAGATCATTGCTCCTCCT R: AGATCAAGATCATTGCTCCTCCT	Synbio Tech		
Primer: Epcam Sequence: F: CATTGCTCCAACTGGCGT R: TGCCTTGTCGGTTCTTCGG	Synbio Tech		
Primer: Krt5 Sequence: F: AGCAATGGCGTTCTGGAGG R: GCTGAAGGTCAGGTAGAGCC	Synbio Tech		
Primer: Krt14 Sequence: F: CGGACCAAGTTTGAGACGGA R: GCCACCTCCTCGTGGTTC	Synbio Tech		
Primer: Krt19 Sequence: F: TCTTTGAAAAACTGAACCCTG R: TGGCTCCTCAGGGCAGTAAT	Synbio Tech		
Primer: Ltf Sequence: F: CACATGCTGTCGTATCCCGA R: CGATGCCCTGATGGACGA	Synbio Tech		
Primer: Nestin Sequence: F: GGGGCTACAGGAGTGGAAC R: GACCTCTAGGGTCCCGTCT	Synbio Tech		
Primer: P63 Sequence: F: TCCTATCACGGGAAGGCAGA R: GTACCATCGCCGTTCTTTGC	Synbio Tech		
<i>Vector</i>			
pLX302 lentivirus no-load vector	Addgene		
pENRTY-mCherry	Xiaofeng Qin laboratory, Sun Yat-sen University		