

Materials List for

# Directed Induction of Retinal Organoids from Human Pluripotent Stem Cells

Xiao Zhang<sup>1</sup>, Zi-Bing Jin<sup>1</sup>

<sup>1</sup>Beijing Institute of Ophthalmology, Beijing Tongren Eye Center, Beijing Tongren Hospital, Capital Medical University, Beijing Ophthalmology & Visual Science Key Laboratory

## Corresponding Author

Zi-Bing Jin  
jinzb502@ccmu.edu.cn

## Citation

Zhang, X., Jin, Z.B. Directed Induction of Retinal Organoids from Human Pluripotent Stem Cells. *J. Vis. Exp.* (170), e62298, doi:10.3791/62298 (2021).

## Date Published

April 21, 2021

## DOI

10.3791/62298

## URL

jove.com/video/62298

## Materials

Name	Company	Catalog Number	Comments
2-mercaptoethanol	Life Technologies	21985-023	
COCO	R&D Systems	3047-CC-050	DAN Domain family of BMP antagonists
DMEM/F-12	Gibco	10565-042	
DMSO	Sigma	D2650	
DPBS	Gibco	C141905005BT	
EDTA	Thermo	15575020	
Fetal Bovine Serum (FBS), Qualified for Human Embryonic Stem Cells	Biological Industry	04-002-1A	
GMEM	Gibco	11710-035	
KnockOut Serum Replacement-Multi-Species	Gibco	A3181502	
MEM Non-essential Amino Acid Solution (100X)	sigma	M7145	
Pen Strep	Gibco	15140-122	
Primesurface 96 V-plate	Sbio	MS9096SZ	Cell aggregation in 1.2.7
Pyruvate	Sigma	S8636	
Reagent A	BD	356231	Matrigel in 1.1.1
Reagent B	StemCell	5990	mTeSR- E8 , PSCs basal medium in 1.1.2
Reagent C	Gibco	12563-011	TrypLE Express in 1.2
Reagent D	Roche	11284932001	DNase I , in 1.2
Retinoic acid	Sigma	R2625-100MG	
SAG	Enzo Life Science	ALX-270-426-M001	
Supplement 1	Life Technologies	17502-048	N-2 Supplement (100X), Liquid, supplement in medum III
Taurine	Sigma	T-8691-25G	
Trypsin-EDTA (0.25%), phenol red	Gibco	25200056	organoids dissociation in 2.1.3
Wnt Antagonist I, IWR-1-endo - Calbiochem	Sigma	681669	Wnt inhibitor

Y-27632 2HCl	Selleck	S1049	
--------------	---------	-------	--