

Materials List for:**Isolation of Neonatal Extrahepatic Cholangiocytes**Sara Karjoo¹, Rebecca G. Wells²¹Division of Gastroenterology, Hepatology, and Nutrition, The Children's Hospital of Philadelphia²Department of Medicine, The Perelman School of Medicine at the University of PennsylvaniaCorrespondence to: Rebecca G. Wells at rgwells@mail.med.upenn.eduURL: <https://www.jove.com/video/51621>

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Materials

Name	Company	Catalog Number	Comments
DMEM/F12 (1:1)	Gibco/ Life technologies	11320-033	500 ml, used in BEC media
FBS	Atlanta Biologicals	S11150	25 ml, used in BEC media
MEM with non-essential amino acids	Gibco/ Life technologies	11140-019	5 ml, used in BEC media
Insulin-transferrin-selenium	Gibco/ Life technologies	51300-044	5 ml, used in BEC media
Na Pyruvate	Cellgro	25-000-CL	5 ml, used in BEC media
Chemically-defined lipid concentrate	Gibco/ Life technologies	11905-031	5 ml, used in BEC media
Penicillin-Streptomycin	Cellgro	30-002-Cl	5 ml, used in BEC media and 500 µl in the isolation
Gentamicin	Gibco/ Life technologies	15750-060	0.2 ml, used in BEC media and 500 µl in the isolation
Ethanolamine	Sigma Aldrich	E9508-100ml	0.13 ml, used in BEC media
MEM vitamin solution	Gibco/ Life technologies	11120-052	5 ml, used in BEC media
Soybean trypsin inhibitor	Biowhittaker	17-605E	5 ml, used in BEC media. Solvent is PBS, mix to 5 mg/ml stock concentration
L-glutamine	Cellgro	25-005-CL	5 ml, used in BEC media
Bovine pituitary extract	Gemini	500-102	1.1 ml, used in BEC media
Dexamethasone	Sigma Aldrich	D4902	0.5 ml, used in BEC media, Stock conc 393 µg/ml dilute with ethanol
3'3',5-triiodo-L-thyronine	Sigma Aldrich	T6397	0.5 ml, used in BEC media, Stock conc 3.4 mg/ml dilute with ethanol
Epidermal growth factor	Millipore	01-101	0.5 ml, used in BEC media, 25 µg/ml dilute with DMEM F12+1%BSA
Forskolin	Sigma Aldrich	F6886	5 ml, used in BEC media, use at stock concentration of 0.411 mg/ml and dilute with DMSO
Fungizone	Gibco/ Life technologies	15290-018	1 ml, used in BEC media and 500 µl in the isolation
Rat-tail collagen	BD Biosciences	354236	variable depending on concentration of collagen
PBS 10x	USB Corporation	75889	use at 10x, sterlie, used to make collagen, amount used depends on collagen concentration
dH ₂ O	N/A	N/A	sterile, used to make collagen, amount used depends on collagen concentration
NaOH 10 N	Fischer Scientific	ss255-1	Dilute to 1 N, sterile, used to make collagen, amount used depends on collagen concentration

collagenase type XI from Clostridium histolyticum	Sigma Aldrich	C7657	dilute in DMEM and sterile filter before use
trypsin-EDTA (1x) 0.25%	Gibco/ Life technologies	25200-056	3 ml, incubate max 10 min
trypsin-EDTA (10x) 0.5%	Gibco/ Life technologies	15400-054	3 ml, incubate max 10 min
Dissecting microscope	Nikon	SMZ645	Other models acceptable
Light source (fiberoptic illuminator)	Schott-Fostec	Ace EKE LR 92240	Other models acceptable
12.5 cm straight iris scissors	Kent Scientific		Other models acceptable
6" non-serrated curved forceps with fine tips	Electron Microscopy Sciences		Other models acceptable
4" serrated stainless forceps with fine tips	Electron Microscopy Sciences		Other models acceptable