

Materials List for:

# Protocol for the Direct Conversion of Murine Embryonic Fibroblasts into Tropheblast Stem Cells

Caroline Kubaczka<sup>1</sup>, Hubert Schorle<sup>1</sup>

<sup>1</sup>Department of Developmental Pathology, Institute of Pathology, University of Bonn Medical School

Correspondence to: Hubert Schorle at [hubert.schorle@ukb.uni-bonn.de](mailto:hubert.schorle@ukb.uni-bonn.de)

URL: <https://www.jove.com/video/54277>

DOI: [doi:10.3791/54277](https://doi.org/10.3791/54277)

## Materials

Name	Company	Catalog Number	Comments
Doxycycline hyclate	Sigma-Aldrich	D9891-10G	Dissolve in sterile PBS, prepare 2 mg/ml stock solution. Store aliquots at -20 °C
Chloroquine diphosphate salt	Sigma-Aldrich	C6628-25G	Prepare 25 mM stock solution in sterile cell culture grade water. Store aliquots at -20 °C
Polybrene (Hexadimethrine bromide)	Sigma-Aldrich	107689-10G	Prepare 8 mg/ml stock solution in sterile cell culture grade water. Store aliquots at -20 °C
human recombinant Fibroblast Growth Factor 4	ReliaTech	300-131L	Dissolve in sterile 0.1% BSA in PBS, prepare 25 µg/ml stock solution. Store aliquots at -80 °C
Heparin sodium salt	Sigma-Aldrich	H3149-10KU	Prepare 1 mg/ml stock solution by dissolving in sterile PBS. Store aliquots at -80°C
ProFection Mammalian Transfection System	Promega	E1200	
PBS, no calcium, no magnesium	ThermoFisher Scientific	1419-094	
DMEM (1x) + GlutaMAX	ThermoFisher Scientific	31966-021	
RPMI 1640, no glutamine	ThermoFisher Scientific	31870-025	
Advanced DMEM (1x)	ThermoFisher Scientific	12491-015	
Trypsin-EDTA (0.05%), phenol red	ThermoFisher Scientific	25300-054	
Poly-L-lysine	Sigma-Aldrich	P4707	
Fetal bovine serum	Hyclone	SH30071.03IR	
Surfactant-free cellulose acetate-membrane filter	Corning	431220	
Non-essential amino acids	ThermoFisher Scientific	11140-035	
Penicillin Streptomycin	ThermoFisher Scientific	15140-122	
Sodium Pyruvate	ThermoFisher Scientific	11360-039	
L-glutamine	ThermoFisher Scientific	25030-24	
2-Mercaptoethanol	ThermoFisher Scientific	31350-010	
Dimethyl sulfoxide (DMSO), cell culture grade	Panreac AppliChem GmbH	A3672,0100	
pLV-tetO-Tfap2c	Addgene	70269	
pLV-tetO-Gata3	Addgene	70270	
pLV-tetO-Eomes	Addgene	70271	
pLV-tetO-Ets2	Addgene	70272	
pLV-tetO-mCherry	Addgene	70273	

psPAX2	Addgene	12260	
pMD2.G	Addgene	12259	
FUdeltaGW-rtTA	Addgene	19780	
Mice B6.Cg-Gt(ROSA)26Sor <sup>tm1(rtTA<sup>*</sup>M2)Jae/J 7</sup>	JAX Mice	6965	
129S2SV	Charles River	129	