

Materials List for:

Engineering Cell-permeable Protein

Bernhard Müntst¹, Christoph Patsch¹, Frank Edenhofer¹

¹Stem Cell Engineering Group, Institute of Reconstructive Neurobiology, University of Bonn - Life & Brain Center and Hertie Foundation

Correspondence to: Frank Edenhofer at f.edenhofer@uni-bonn.de

URL: <https://www.jove.com/video/1627>

DOI: [doi:10.3791/1627](https://doi.org/10.3791/1627)

Materials

Name	Company	Catalog Number	Comments
TUNER (DE3) pLacI	Novagen, EMD Millipore	70625	
Glycerol	Carl Roth GmbH	3783.2	
Na ₂ HPO ₄	Carl Roth GmbH	T876.1	
Trizma Base	Sigma-Aldrich	T1503	
HCl	Carl Roth GmbH	4625.1	
Imidazol	Carl Roth GmbH	X998.4	
NaCl	Carl Roth GmbH	9265.2	
Yeast Extract	Carl Roth GmbH	2363.4	
Trypton/Pepton	Carl Roth GmbH	8952.4	
K ₂ HPO ₄	Carl Roth GmbH	P749.2	
KH ₂ PO ₄	Carl Roth GmbH	3904.1	
Ampicillin	Sigma-Aldrich	A9518	
Carbenicillin	Sigma-Aldrich	6344.2	
HEPES	Sigma-Aldrich	H3375	
Lysozyme	Sigma-Aldrich	62971	
Benzonase	Novagen, EMD Millipore		
L-Tartaric acid, disodium salt	Sigma-Aldrich		
50% Ni-NTA slurry	Invitrogen	R901-15	
EconoPac columns	Bio-Rad	732-1010	
Sterile filter 0,22µm	Whatman, GE Healthcare		
Paraformaldehyde (PFA)	Sigma-Aldrich		
LB medium			Yeast extract, Trypton/Pepton, NaCl
TB medium			Yeast extract, Trypton/Pepton, Glycerol, K ₂ HPO ₄ , KH ₂ PO ₄
Lysis Buffer			50 mM Na ₂ HPO ₄ , 5 mM Tris, pH 7.8
Tartaric Salt Buffer (TSB)			PTB containing 2 M L-Tartaric acid, disodium salt, and 20 mM Imidazol
Washing Buffer			PTB, 500 mM NaCl, 15 mM Imidazol
Elution Buffer			PTB, 500 mM NaCl, 250 mM Imidazol
High Salt Buffer			600 mM NaCl, 20 mM HEPES, pH 7.4
Glycerol Buffer			50% glycerol, 500 mM NaCl, 20 mM HEPES, pH 7.4

TrypLE™ Express	Invitrogen		
ESGRO (LIF)	EMD Millipore		
NEAA	GIBCO, by Life Technologies	11140035	
L-Glutamin	GIBCO, by Life Technologies	25030024	
β-Mercapt–thanol	GIBCO, by Life Technologies	31350010	
DMEM	GIBCO, by Life Technologies	11960044	
PBS	GIBCO, by Life Technologies		
Fetal Calf Serum (FCS)	PAA Laboratories		
X-Gal staining solution:			4 mM $K_3(FeIII(CN)_6)$, 4 mM $K_4(FeII(CN)_6)$, 2mM $MgCl_2$ 0.4 mg/mL X-Gal solved in PBS
$K_3(FeIII(CN)_6)$	Sigma-Aldrich	P-3367	
$K_4(FeII(CN)_6)$	Sigma-Aldrich	P-9387	
$MgCl_2$	Sigma-Aldrich	M8266	
X-Gal	Sigma-Aldrich	B4252	