

Materials List for:

CRISPR/Cas9 Ribonucleoprotein-mediated Precise Gene Editing by Tube Electroporation

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Materials

Name	Company	Catalog Number	Comments
Accutase	STEMCELL Technologies	792	Cell detachment solution for human iPSCs, first used in Step 1.1.2.
Cas9 Nuclease 3NLS	IDT	1074182	Cas9 protein, first used in Step 3.3.
DMEM	Thermo Fisher	11965092	For cell culture, first used in Step 1.2.3.
DPBS	Thermo Fisher	1708075	For preparing cell culture, first used in Step 1.2.2.
EDTA	Lonza	51201	For making lysis buffer, first used in Step 4.1.
Electroporation buffer	Celetrix	13-0104	The electroporation buffer, first used in Step 3.2.
Electroporation tubes	Celetrix	20 µL: 12-0107; 120 µL: 12-0104	The electroporation tube, first used in Step 3.4.
Electroporator	Celetrix	CTX-1500A LE	The tube electroporation machine, first used in Step 3.5
Fetal bovine serum	Sigma Aldrich	12003C	For cell culture, first used in Step 1.2.2.
Forma CO ₂ Incubators	Thermo Fisher	Model 370	For cell culture, first used in Step 1.1.
Gel Extraction Kit	Qiagen	28115	For gel purification, first used in Step 4.3.
Human induced pluripotent stem cells	American Type Culture Collection	ACS-1030	Human iPSCs, first used in Step 1.1.
Matrigel	Corning	354277	Artificial extracellular matrix; for precoating cell culture plate, first used in Step 1.1.
mTeSR 1 medium	STEMCELL Technologies	85850	Feeder-free cell culture medium for human iPSCs, first used in Step 1.1.
PCR SV mini	GeneAll	103-102	For PCR product purification, first used in Step 4.3.
Penicillin-Streptomycin	Thermo Fisher	15140163	For preparing cell culture, first used in Step 1.2.2.
Phenol-chloroform	Thermo Fisher	15593031	For DNA extraction, first used in Step 4.2.
Precision gRNA Synthesis Kit	Invitrogen	A29377	For the generation of full length gRNA (guide RNA), first used in Step 2.4.

Proteinase K Solution	Thermo Fisher	AM2548	For DNA extraction, first used in Step 4.1.
Q5 high-fidelity DNA polymerase	NEB	M0491	For PCR amplification, first used in Step 4.3.
Sodium dodecyl sulfate	Sigma Aldrich	L3771	For making lysis buffer, first used in Step 4.1.
TA Cloning Kit	Thermo Fisher	K457502	For TA clone sequencing, first used in Step 4.4.
Tissue Culture Dish (10 cm)	FALCON	353003	For cell culture, first used in Step 1.2.3.
Tissue Culture Dish (12 well)	FALCON	353043	For cell culture, first used in Step 3.7.
Tissue Culture Dish (6 cm)	FALCON	353004	For cell culture, first used in Step 1.2.2.
Tris HCl	Thermo Fisher	BP1757-500	For making lysis buffer, first used in Step 4.1.
Trypsin-EDTA	Thermo Fisher	25200056	For cell digestion, first used in Step 1.2.4.
Universal Fit Pipette Tips	Celetrix	14-0101	For electroporation, first used in Step 3.4.
Y27632	LC Labs	Y-5301	The apoptosis inhibitor, first used in Step 1.1.1.