

Materials List for:

# CRISPR/Cas9 Technology in Restoring Dystrophin Expression in iPSC-Derived Muscle Progenitors

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URL: <https://www.jove.com/video/59432>

DOI: [doi:10.3791/59432](https://doi.org/10.3791/59432)

## Materials

Name	Company	Catalog Number	Comments
Surgical Instruments			
31-gauge needle	Various		
Sharp Incision	Various		
Sterile Scalpels	Various		
Tweezers	Various		
Fibroblast medium (for 100 mL of complete medium)	Company	Catalog Number	Volume
2-Mercaptoethanol (55 mM)	Gibco	21-985-023	0.1 mL
Antibiotic Antimycotic Slution 100x	CORNING	MT30004CI	1 mL
Dulbecco's Modified Eagle's Medium - high glucose	SIGMA	D6429	87 mL
Fetal Bovine Serum Characterized	HyClone	SH30396.03	10 mL
L-Glutamine solution	SIGMA	G7513	1 mL
MEM Non-Essential Amino Acids Solution (100x)	Gibco	11140076	1 mL
TVP solution (for 500 mL of complete solution)	Company	Catalog Number	Volume
Chicken Serum	Gibco	16110-082	5 mL
EDTA	Sigma-Aldrich	E6758	186 mg
Phosphat-buffered saline			to 500 mL
Trypsin (2.5%)	Thermo	15090046	5 mL
mES growth medium(for 500 mL of complete solution)	Company	Catalog Number	Volume
2-Mercaptoethanol (55 mM)	Gibco	21-985-023	0.5 mL
Antibiotic Antimycotic Slution 100x	CORNING	MT30004CI	5 mL
Dulbecco's Modified Eagle's Medium - high glucose	SIGMA	D6429	408.5 mL
Fetal Bovine Serum Characterized	HyClone	SH30396.03	75 mL
L-Glutamine solution	SIGMA	G7513	5 mL
Mouse recombinant Leukemia Inhibitory Factor (LIF), 0.5 x 10 <sup>6</sup> U/ mL	EMD Millipore Corp	CS210511	500 µL
MEK/GS3 Inhibitor Supplement	EMD Millipore Corp	CS210510-500UL	500 µL
MEM Non-Essential Amino Acids Solution (100x)	Gibco	11140076	5 mL
The ES cell media should not be stored for more than 4 weeks and			

with inhibitors not more than 2 weeks.			
<b>mES frozen medium(for 50 mL of complete solution)</b>	<b>Company</b>	<b>Catalog Number</b>	<b>Volume</b>
Dimethyl sulfoxide (DMSO)	SIGMA	D2650	5 mL
Dulbecco's Modified Eagle's Medium - high glucose	SIGMA	D6429	24.9 mL
Fetal Bovine Serum Characterized	HyClone	SH30396.03	25 mL
Mouse recombinant Leukemia Inhibitory Factor (LIF), 0.5 x 10 <sup>6</sup> U/ mL	EMD Millipore Corp	CS210511	50 µL
Name of Material/ Equipment	Company	Catalog Number	RRID
0.05% Trypsin/0.53 mM EDTA	CORNING	25-052-CI	
4% Paraformaldehyde	Thermo scientific	J19943-k2	
Accutase solution	SIGMA	A6964	Cell detachment solution
Agel-HF	NEB	R3552L	
Alexa488-conjugated goat-anti-mouse antibody	Invitrogen	A32723	AB_2633275
Alexa488-conjugated goat-anti-rabbit antibody	Invitrogen	A32731	AB_2633280
Alexa555-conjugated goat-anti-rabbit antibody	Invitrogen	A32732	AB_2633281
anti-AFP	Thermo scientific	RB-365-A1	AB_59574
anti-α-Smooth Muscle Actin (D4K9N) XP	CST	19245S	AB_2734735
anti-Dystrophin	Thermo	PA5-32388	AB_2549858
anti-LIN28A (D1A1A) XP	CST	8641S	AB_10997528
anti-MYH2	DSHB	mAb2F7	AB_1157865
anti-Nanog-XP	CST	8822S	AB_11217637
anti-Oct-4A (D6C8T)	CST	83932S	AB_2721046
anti-Sox2	abcam	ab97959	AB_2341193
anti-SSEA1(MC480)	CST	4744s	AB_1264258
anti-TH (H-196)	SANTA CRUZ	sc-14007	AB_671397
Alkaline Phosphatase Live Stain (500x)	Thermo	A14353	
Blasticidin S	Sigma-Aldrich	203350	
BsmBI/Esp3I	NEB	R0580L/R0734L	
Carbenicillin	Millipore	205805-250MG	
Collagenase IV	Worthington Biochemical Corporation	LS004189	
Competent Cells	TakaRa	636763	
CutSmart	NEB	B7204S	
CytoTune-iPS 2.0 Sendai Reprogramming Kit	Thermo	A16517	
DirectPCR Lysis Reagent (cell)	VIAGEN BIOTECH	302-C	
Dispase (1 U/mL)	STEMCELL Technologies	7923	
Doxycycline Hydrochloride	Fisher BioReagents	BP26535	
EcoRI-HF	NEB	R3101L	
Fibronectin bovine plasma	SIGMA	F1141	
	QIAGEN	20051	

QIAEX II Gel Extraction Kit (500)			
Gelatin from porcine skin, type A	SIGMA	G1890	
HardSet Antifade Mounting Medium with DAPI	Vector	H-1500	
Hygromycin B (50 mg/mL)	Invitrogen	10687010	
Ketamine HCL Injection	HENRY SCHEIN ANIMAL HEALTH	45822	
KpnI-HF	NEB	R3142L	
lenti-CRISPRv2-blast	Addgene	83480	
lenti-Guide-Hygro-iRFP670	Addgene	99377	
Lipofectamin 3000 Transfection Kit	Invitrogen	L3000015	
LV-TRE-VP64-mouse MyoD-T2A-dsRedExpress2	Addgene	60625	
LV-TRE-VP16 mouse MyoD-T2A-dsRedExpress2	Addgene	60626	
Mouse on Mouse (M.O.M.) Basic Kit	Vector	BMK-2202	
NotI-HF	NEB	R3189L	
Opti-MEM I Reduced Serum Media	ThermoFisher	31985070	
Polyethylene glycol 4,000	Alfa Aesar	AAA161510B	
Polybrene	SIGMA	TR1003	
Corning BioCoat Poly-D-Lysine/Laminin Culture Slide	CORNING	CB354688	
PowerUp SYBR Green Master Mix	ThermoFisher	A25742	
PrimeSTAR Max Premix	TakaRa	R045	
Proteinase K	VIAGEN BIOTECH	507-PKP	
Puromycin Dihydrochloride	MP Biomedicals	ICN19453980	
qPCR Lentivirus Titration Kit	abm	LV900	
Quick ligation kit	NEB	M2200S	
QIAprep Spin Miniprep Kit (250)	QIAGEN	27106	
QIAGEN Plasmid Plus Midi Kit (100)	QIAGEN	12945	
RevertAid RT Reverse Transcription Kit	Thermo scientific	K1691	
RNAzol RT	Molecular Research Center, INC	RN 190	
T4 DNA Ligase Reaction Buffer	NEB	B0202S	
T4 Polynucleotide Kinase	NEB	M0201S	
Terrific Broth Modified	Fisher BioReagents	BP9729-600	
ViralBoost Reagent (500x)	ALSTEM	VB100	