Materials List for:

Efficient Differentiation of Mouse Embryonic Stem Cells into Motor Neurons

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URL: http://www.jove.com/video/3813
DOI: doi:10.3791/3813

Materials

Name	Company	Catalog Number	Comments
PMEF	EMD Millipore	PMEF-H	N.A.
DMEM	Invitrogen	11965-118	N.A.
FBS	Invitrogen	16140-071	10%
L-glutamine	Invitrogen	25030-081	1%
Penicillin/streptomycin	Invitrogen	15240-063	1%
DMEM	Stem Cell Technologies	36250	N.A.
ES Cell-Qualified FBS	Invitrogen	16141-079	15%
GlutaMax-I	Invitrogen	35050-061	1%
Non-essential amino acids	Invitrogen	11140-050	1%
Nucleosides	EMD Millipore	ES-008-D	1%
β-mercaptoethanol	EMD Millipore	ES-007-E	0.1 mM
Penicillin/streptomycin	EMD Millipore	TMS-AB2-C	1%
LIF	EMD Millipore	LIF2010	10 ng/ml
DMEM	Stem Cell Technologies	36250	N.A.
ES Cult FBS	Stem Cell Technologies	06905	15%
Non-essential amino acids	Invitrogen	11140-050	1%
Mono-thio glycerol	Sigma-Aldrich	M-6145	1mM
Noggin	Invitrogen	PHC1506	50 ng/ml
FGF-8	Invitrogen	PHG0274	20 ng/ml
bFGF	Invitrogen	PHG0024	20 ng/ml
ES-Cult Basal Medium-A	Stem Cell Technologies	5801	N.A.
Knockout serum replacement	Invitrogen	10828-028	10%
N-2 supplement	Invitrogen	17502-048	1%
ITS Supplement-B	Stem Cell Technologies	07155	1%
Ascorbic acid	Stem Cell Technologies	07157	1%
Penicillin/streptomycin	EMD Millipore	TMS-AB2-C	1%
GlutaMax-I	Invitrogen	35050-061	1%
D-glucose	Sigma-Aldrich	G-8270	0.15% in d_2H_2O
Fibronectin	Stem Cell Technologies	07159	5 μg/ml
Heparin	Sigma-Aldrich	H3149	20 μg/ml in d_2H_2O
β-mercaptoethanol	EMD Millipore	ES-007-E	0.1 mM
Retinoic Acid	Sigma-Aldrich	R-2625	1 μM
SAG	EMD Millipore	566660	1 μM
ES-Cult Basal Medium-A	Stem Cell Technologies	5801	N.A.
Knockout serum replacement	Invitrogen	10828-028	10%

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N-2 supplement	Invitrogen	17502-048	1%
ITS Supplement-B	Stem Cell Technologies	07155	1%
Ascorbic acid	Stem Cell Technologies	07157	1%
Penicillin/streptomycin	EMD Millipore	TMS-AB2-C	1%
GlutaMax-I	Invitrogen	35050-061	1%
D-glucose	Sigma-Aldrich	G-8270	0.15% in d_2H_2O
Fibronectin	Stem Cell Technologies	07159	5 µg/ml
Heparin	Sigma-Aldrich	H3149	20 µg/ml in d_2H_2O
β-mercaptoethanol	EMD Millipore	ES-007-E	0.1 mM
BDNF	R&D Systems	248-BD-005/CF	10 ng/ml
CNTF	R&D Systems	257-NY-010/CF	10 ng/ml
GDNF	R&D Systems	212-GD-010/CF	10 ng/ml
NT-3	R&D Systems	267-N3-005/CF	10 ng/ml
N.A. = Non-applicable			
Table 1. PMEF and Media for mES cell culture or differentiation			
0.1% Gelatin	Stem Cell Technologies	07903	N.A.
Poly-DL-ornithine	Sigma-Aldrich	P0421	0.1 mg/ml in d_2H_2O
Mouse laminin	EMD Millipore	CC095	2 µg/ml in PBS
0.25% Trypsin/EDTA	Stem Cell Technologies	07901	N.A.
Accumax	EMD Millipore	SCR006	N.A.
N.A. = Non-applicable			
Table 2. Reagents for coating and dissociation			

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