Media Formulations for Derivation, Propagation and Maturation of Motor Neural Cultures

Add immediately before use | Light Sensitive

Neural Differentiation Media (NDM)	Stock Concentration	Units	1X Concentration	Units	Volume 1,000 mL	Volume 500 mL	Volume 250	Volume 100	Volume 50
IMDM	1X	mL	47.5%	mL	475 mL	237.5 mL	118.75	47.5	23.75
F-12	1X	mL	47.5%	mL	475 mL	237.5 mL	118.75	47.5	23.75
Non-Essential Amino Acids (NEAA)	100X	mL	1.0%	mL	10 mL	5 mL	2.5	1	0.5
B-27	50X	mL	2.0%	mL	20 mL	10 mL	5	2	1
N-2	100X	mL	1.0%	mL	10 mL	5 mL	2.5	1	0.5
PSA	100X	mL	1.0%	mL	10 mL	5 mL	2.5	1	0.5

Motor Neuron Maturation Media (MNMM) Stage 1	Stock Concentration	Units	1X Concentration	Units	Volume 500	Volume 250	Volume 100	Volume 50	Volume 25	Volume 10
NDM	1X	mL	99.8%	mL	498 mL	249 mL	99.6 mL	49.8	24.9	9.96
All-trans Retinoic Acid (ATRA)	10	mM	10.0%	µM	5 µL	2.5 µL	1 µL	0.5	0.25	0.1
PMN	10	mM	100.0%	µM	50 µL	25 µL	10 µL	5	2.5	1
BDNF	10	µg/mL	10	ng/mL	500 µL	250 µL	100 µL	50	25	10
GDNF	10	µg/mL	10	ng/mL	500 µL	250 µL	100 µL	50	25	10
Ascorbic Acid	500	µg/mL	200	ng/mL	200 µL	100 µL	40 µL	20	10	4
db-cAMP	102	mM	1	µM	5 µL	2.5 µL	1 µL	0.5	0.25	0.1
DAPT	20	mM	2.5	µM	62.5 µL	31.3 µL	12.5	6.3	3.1	1.6

Motor Neuron Maturation Media (MNMM) Stage 2	Stock Concentration	Units	1X Concentration	Units	Volume 500	Volume 250	Volume 100	Volume 50	Volume 25	Volume 10
Neuralbasal	1X	mL	98.8%	mL	482 mL	241 mL	96.4 mL	48.2	24.1	9.64
NEAA	100X	mL	1.0%	mL	5 mL	2.5 mL	1 mL	0.5 mL	0.25 mL	0.1 mL
Glutamax	200X	mL	0.5%	mL	2.5 mL	1.25 mL	0.5 mL	0.25	0.125	0.05
N-2	100X	mL	1.0%	mL	5 mL	2.5 mL	1 mL	0.5	0.25	0.1
BDNF	10	µg/mL	10	ng/mL	500 µL	250 µL	100 µL	50	25	10
GDNF	10	µg/mL	10	ng/mL	500 µL	250 µL	100 µL	50	25	10
Ascorbic Acid	500	µg/mL	200	ng/mL	200 µL	100 µL	40 µL	20	10	4
db-cAMP	102	mM	1	µM	5 µL	2.5 µL	1 µL	0.5	0.25	0.1
Ara-C	10	mM	0	µM	5 µL	2.5 µL	1 µL	0.5	0.25	0.1
PSA	100X	mL	0.01	mL	5 mL	2.5 mL	1 mL	0.5	0.25	0.1