

Macrophage Differentiation and Polarization into an M2-Like Phenotype using a Human Monocyte-Like THP-1 Leukemia Cell Line

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Materials

Name	Company	Catalog Number	Comments
0.4% trypan blue	VWR, Radnor, USA	152-5061	
1.5 mL microcentrifuge tube	USA Scientific, Ocala, USA	1615-5510	
10 mL serological pipet	VWR, Radnor, USA	89130-898	
1000 µL TipOne pipet tips	USA Scientific, Ocala, USA	1111-2821	
15 mL Centrifuge tube	VWR, Radnor, USA	89039-664	
20 µL TipOne pipet tips	USA Scientific, Ocala, USA	1120-1810	
200 µL TipOne pipet tips	USA Scientific, Ocala, USA	1120-8810	
25 mL serological pipet	VWR, Radnor, USA	89130-900	
5 mL serological pipet	VWR, Radnor, USA	89130-896	
50 mL Centrifuge tube	VWR, Radnor, USA	89039-662	
Accutase solution 500 mL	Sigma, St. Louis, USA	A6964	
Antibiotic Antimycotic Solution (100x), stabilized	Sigma, St. Louis, USA	A5955-100 mL	with 10,000 units penicillin, 10 mg of streptomycin and 25 µg of amphotericin B per mL, sterile-filtered, BioReagent, suitable for cell culture
Binder CO2 Incubator	VWR, Radnor, USA	C170-ULE3	
CytoOne T-75cm flask with filter cap	USA Scientific, Ocala, USA	CC7682-4875	
Dulbecco's Phosphate Buffered Saline (PBS)	Sigma, St. Louis, USA	D8537-500 mL	PBS without calcium chloride and magnesium chloride should be used, since both can alter macrophage polarization
Eppendorf Centrifuge 5804 R (refrigerated)	Eppendorf, Enfield, USA	-	
Ethyl alcohol (70%)	-	-	
FACSCalibur flow cytometer	BD Biosciences, San Diego, USA	-	The flow cytometer operates with CellQuest software (BD Biosciences)
Falcon 24-well plate	VWR, Radnor, USA	353504	

Fetal Bovine Serum (FBS)	ATCC, Manassas, USA	30-2020	
FITC Mouse Anti-Human CD14	BD Biosciences, San Diego, USA	555397	Flow cytometry, myeloid cell marker (100 tests)
FITC Mouse Anti-Human CD80	BD Pharmingen, San Diego, USA	557226	Flow cytometry, M1 marker (100 tests)
FITC Mouse IgG1 κ Isotype Control	BD Pharmingen, San Diego, USA	555748	Flow cytometry, isotype control for CD80 (100 tests)
FITC Mouse IgG2a, κ Isotype Control	BD Biosciences, San Diego, USA	553456	Flow cytometry, isotype control for CD14 (100 tests)
Human BD Fc Block	BD Biosciences, San Diego, USA	564220	Flow cytometry, Fc block (0.25 mg)
Human interleukin 13 (IL-13)	R&D, Minneapolis, USA	IL-771-10 μ g	
Human interleukin 4 (IL-4)	R&D, Minneapolis, USA	SRP3093-20 μ g	
Labconco Biosafety Cabinet (Delta Series 36212/36213)	Labconco, Kansas City, USA	-	
L-Glutamine Solution, 200 mM	ATCC, Manassas, USA	30-2214	
Lipopolysaccharide (LPS) from E. coli 0111:B4	Sigma, St. Louis, USA	L2630-100 mg	
Mini Cell Scrapers	Biotium, Fremont, USA	22003	
Neubauer hemocytometer	Fisher Scientific, Waltham, USA	02-671-5	
Nikon Eclipse inverted microscope TS100	Nikon, Melville, USA	-	
Nuclease-free water	Invitrogen, Carlsbad, USA	AM9937	
Olympus Light Microscope RH-2	Microscope Central, Feasterville, USA	40888	
P10 variable pipet- Gilson	VWR, Radnor, USA	76180-014	
P1000 variable pipet-Gilson	VWR, Radnor, USA	76177-990	
P200 variable pipet- Gilson	VWR, Radnor, USA	76177-988	
PE Mouse Anti-Human CD11b	BD Biosciences, San Diego, USA	555388	Flow cytometry, myeloid cell marker (100 tests)
PE Mouse IgG1, κ Isotype Control	BD Biosciences, San Diego, USA	555749	Flow cytometry, isotype control for CD11b (100 tests)
PE-Cy 5 Mouse Anti-Human CD206	BD Pharmingen, San Diego, USA	551136	Flow cytometry, M2 marker (100 tests)
PE-Cy 5 Mouse IgG1 κ Isotype Control	BD Pharmingen, San Diego, USA	555750	Flow cytometry, isotype control for CD206 (100 tests)
Phorbol 12-myristate 13-acetate (PMA)	Sigma, St. Louis, USA	P8139	
Powerpette Plus pipettor	VWR, Radnor, USA	75856-448	
Precision Water bath (model 183)	Precision Scientific, Chicago, USA	66551	
RPMI-1640 Medium	ATCC, Manassas, USA	30-2001	
THP-1 cell line, American Type Culture Collection (ATCC)	ATCC, Manassas, USA	TIB-202	