

Materials List for:

Generation of Microtumors Using 3D Human Biogel Culture System and Patient-derived Glioblastoma Cells for Kinomic Profiling and Drug Response Testing

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URL: <https://www.jove.com/video/54026>

DOI: [doi:10.3791/54026](https://doi.org/10.3791/54026)

Materials

Name	Company	Catalog Number	Comments
Collagenase-I	Sigma-Aldrich	CO130	
Trypsin EDTA (10x)	Invitrogen	15400-054	
Neurobasal-A	Life Technologies	10888-022	
N-2 Supplement	Life Technologies	17502-048	1x final concentration
B-27 Supplement w/o Vitamin A	Life Technologies	12587-010	1x final concentration
Recombinant Human FGF-basic	Life Technologies	PHG0266	10 ng/ml final concentration
Recombinant Human EGF	Life Technologies	PGH0315	10 ng/ml final concentration
L-Glutamine	Corning Cellgro Mediatech	25-005-CI	2 mM final concentration
Fungizone	Omega Scientific	FG-70	2.5 µg/ml final concentration
Penicillin Streptomycin	Omega Scientific	PS-20	100 U/ml Penicillin G, 100 µg/ml Streptomycin final concentration
Gentamicin	Life Technologies	15750-060	50 ng/ml final concentration
MTT	Life Technologies	M6494	prepared to 5 mg/ml in PBS and sterile filtered, 1 mg/ml in well
SDS	Fisher	BP166	for MTT lysis buffer, prepared to 10% in 0.01 M HCl, 5% in well
HCl	Fisher	A144SI-212	for MTT lysis buffer, prepared to 0.01 M with SDS, 5 mM in well
Calcein AM	Life Technologies	C1430	1 mM in DMSO stock, 2 µM in PBS staining solution, 1 µM in well
Halt's Protein Phosphatase Inhibitor cocktail	Pierce ThermoScientific	78420	1:100 ratio in MPER
Halt's Protein Protease Inhibitor	Pierce ThermoScientific	87786	1:100 ratio in MPER
Mammalian Protein Extraction Reagent (MPER)	Pierce ThermoScientific	PI78501	
Trypan Blue	Pierce ThermoScientific	15250-061	
DMSO	Fisher	BP231	for dissolution of calcein AM & compounds
Phosphate-Buffered Saline without Ca/Mg	Lonza	17-517Q	diluted to 1x with MiliQ ultrapure water and sterile filtered (for cell culture)
Dulbecco's Phosphate-Buffered Saline with Ca/Mg	Corning Cellgro Mediatech	20-030-CV	diluted to 1x with MiliQ ultrapure water (for pre-fixation wash)

10% Neutral Buffered Formalin	Protocol	032-060	
Trypan Blue	Pierce ThermoScientific	15250-061	
High Density Hubigel	Vivo Biosciences	HDHG-5	
Halt's Protein Phosphatase Inhibitor	Pierce	78420	
Halt's Protein Protease Inhibitor	Pierce	87786	
Mammalian Protein Extraction Reagent (MPER)	Thermo Scientific	78501	
Protein Tyrosine Kinase (PTK) Array Profiling chip	PamGene	86312	
PTK kinase buffer	PamGene	36000	300 µl 10x PK buffer stock in 2.7 ml dH ₂ O, catalog number for PTK reagent kit
ATP	PamGene	36000	catalog number for PTK reagent kit
PY20- FITC-conjugated antibody	PamGene	36000	catalog number for PTK reagent kit
PTK Additive	PamGene	32114	
PTK-MM1 tube (10x BSA)	PamGene	36000	catalog number for PTK reagent kit
Serine/Threonine Kinase (STK) Array Profiling chip	PamGene	87102	
STK kinase buffer	PamGene	32205	catalog number for STK reagent kit
STK Primary Antibody Mix (DMAB tube)	PamGene	32205	catalog number for STK reagent kit
FITC-conjugated Secondary Antibody	PamGene	32203	
STK-MM1 tube (100x BSA)	PamGene	32205	catalog number for STK reagent kit
STK Antibody Buffer	PamGene	32205	catalog number for STK reagent kit
Equipment			
#11 Blades, sterile	Fisher	3120030	
#3 scalpel handles, sterile	Fisher	08-913-5	
100 mm glass Petri dishes	Fisher	08-748D	
Semicurved forceps	Fisher	12-460-318	
Trypsinizing flask	Fisher	10-042-12B	
Magnetic stirrer	Fisher	14-490-200	
3/4" stir bar	Fisher	14-512-125	
B-D cell strainer	Fisher	#352340	
B-D 50 ml Centrifuge tube	Fisher	#352098	
PamStation 12	PamGene		
BioNavigator 6.0 kinomic analysis software	PamGene		
Evolve Kinase Assay Software	PamGene		
UpKin App software (upstream kinase prediction)	PamGene		
gentleMACS Dissociator	Miltenyi Biotec	130-093-235	
Rotary Cell Culture System (RCCS)	Synthecon	RCCS-D	with 10 ml disposable HARV