

Materials List for:

Assessing Cell Viability and Death in 3D Spheroid Cultures of Cancer Cells

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Materials

Name	Company	Catalog Number	Comments
2-(4-amidinophenyl)-1H-indole-6-carboxamide (DAPI)	Invitrogen	# C10595	For staining nuclei
5-Fluorouracil (5-FU)	Sigma-Aldrich	#F6627	Component in chemotherapeutic treatment
5-(N-ethyl-isopropyl) amiloride (EIPA)	Life Technologies	#E3111	Inhibitor of NHE1
Antibody against PARP and cPARP	Cell signaling	#9542	Used in western blotting
Antibody against Ki-67	Cell signaling	#9449	Used for IHC
Antibody against p53	Cell Signaling	#2524	Used for IHC
Antibody against β -actin	Sigma	A5441	Used in western blotting
Bactoagar	BD Bioscience	#214010	Used for agarose gel preparation
Benchmark protein ladder	Invitrogen	#10747-012	Used for SDS-PAGE
Bio-Rad DC Protein Assay kit	Bio-Rad Laboratories	#500-0113, #500-0114, #500-0115	Used for protein determination from lysates
Bürker chamber	Marienfeld	610311	For cell counting
BX63 epifluorescence microscope	Olympus		Used for fluorescent imaging
CellTiter-Glo 3D Cell Viability Assay	Promega	#G9681	Used for the cell viability assay
Cisplatin	Sigma-Aldrich	#P4394	Component in chemotherapeutic treatment
Corning Spheroid Microplate, 96 well, Black with clear round bottom, Ultra-low attachment, With lid, Sterile	Corning	#4520	Used for growing spheroids with luminescence measurements as end point
Corning 96 well, clear round bottom, Ultra-low attachment microplate, With lid, Sterile	Corning	#7007	Sufficient for spheroid growth without luminescence measurements as end point
Criterion TGX Precast Gels	Bio-Rad	5671025	Used for SDS-PAGE
Doxorubicin	Abcam	#120629	Component in chemotherapeutic treatment
FLUOStar Optima Microplate reader	BMG Labtech		Used for recording luminescence
Formaldehyde	VWR Chemicals	#9713.1000	Used for cell fixation
Geltrex LDEV-Free Reduced Growth Factor Basement Membrane Matrix	Gibco	#A1413202	Keep at 4 °C to prevent solidification. Referred to as rBM in the protocol.
Heat-inactivated FBS	Sigma	#F9665	Serum for growth media
ImageJ	NIH		Scientific Image analysis
Medim Uni-safe cassette	Medim Histotechnologie	10-0114	Used for storage of embedded spheroids

Mini protease inhibitor cocktail tablets	Roche Diagnostics GmbH	# 11836153001	Used for lysis buffer preparation
MZ16 microscope	Leica		Used for light microscopic images
NuPAGE LDS 4x Sample Buffer	Invitrogen	#NP0007	Used for western blotting
Pierce ECL Western blotting substrate	Thermo scientific	#32106	Used for western blotting
Ponceau S	Sigma-Aldrich	#P7170-1L	Used for protein band staining
Prism 6.0	Graphpad		Scientific graphing and statistical software
Propidium iodide (1mg/ml solution in water)	Invitrogen	P3566	Light sensitive
Sterile reservoirs, multichannel	SPL lifesciences	21002	Used for seeding cells for spheroid formation
Superfrost Ultra-Plus Adhesion slide	Menzel-Gläser	#J3800AMNZ	Microscope glass slide used for embedding
Tamoxifen	Sigma-Aldrich	#T5648	Used as chemotherapeutic treatment
Trans-blot Turbo 0.2 µm nitrocellulose membranes	Bio-Rad	#170-4159	Used for western blotting
Tris/Glycine/SDS running buffer	Bio-Rad	#161 0732	Used for SDS-PAGE
Trypsin-EDTA solution	Sigma	#T4174	Cell dissociation enzyme