

Establishment of Zebrafish Patient-derived Xenografts from Pancreatic Cancer for Chemosensitivity Testing

 Alice Usai¹, Gregorio Di Franco², Chiara Gabellini¹, Luca Morelli², Vittoria Raffa¹
¹Department of Biology, University of Pisa ²General Surgery Unit, Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa

Corresponding Author

 Alice Usai
 alice.usai@biologia.unipi.it

Citation

 Usai, A., Di Franco, G., Gabellini, C., Morelli, L., Raffa, V. Establishment of Zebrafish Patient-derived Xenografts from Pancreatic Cancer for Chemosensitivity Testing. *J. Vis. Exp.* (195), e63744, doi:10.3791/63744 (2023).

Date Published

May 12, 2023

DOI

10.3791/63744

URL

jove.com/video/63744

Materials

Name	Company	Catalog Number	Comments
5-fluorouracil	Teva Pharma AG	SMP 1532755	
48 multiwell plate	Sarstedt	83 3923	
96 multiwell plate	Sarstedt	82.1581.001	
Acetone	Merck	179124	
Agarose powder	Merck	A9539	
Amphotericin	Thermo Fisher Scientific	15290018	
Anti-Nuclei Antibody, clone 235-1	Merck	MAB1281	1:200 dilution
Aquarium net QN6	Penn-plax	0-30172-23006-6	
BSA	Merck	A9418	
CellTrace	Thermo Fisher Scientific	C34567	
CellTracker CM-Dil	Thermo Fisher Scientific	C7001	
CellTracker Deep Red	Thermo Fisher Scientific	C34565	
Cleaved Caspase-3 (Asp175) (5A1E) Rabbit mAb	Cell Signaling Technology	9661S	1:250 dilution
Dimethyl sulfoxide (DMSO)	PanReac AppliChem ITW Reagents	A3672,0250	
Dumont #5 forceps	World Precision Instruments	501985	
Folinic acid - Lederfolin	Pfizer		
Glass capillaries, 3.5"	Drummond Scientific Company	3-000-203-G/X	Outer diameter = 1.14 mm. Inner diameter = 0.53 mm.
Glass vials	VWR International	WHEAW224581	
Goat anti-Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 647	Thermo Fisher Scientific	A-21244	1:500 dilution
Goat serum	Thermo Fisher Scientific	31872	
Hoechst 33342	Thermo Fisher Scientific	H3570	
Irinotecan	Hospira		
Low Temperature Freezer Vials	VWR International	479-1220	
Mcllwain Tissue Chopper	World Precision Instruments		

Microplate Mixer	SCIOLOGEX	822000049999	
Oxaliplatin	Teva		
Paraformaldehyde	Merck	P6148-500G	
PBS	Thermo Fisher Scientific	14190094	
Penicillin-streptomycin	Thermo Fisher Scientific	15140122	
Petri dish 100 mm	Sarstedt	83 3902500	
Petri dish 60 mm	Sarstedt	83 3901	
Plastic Pasteur pipette	Sarstedt	86.1171.010	
Poly-Mount	Tebu-bio	18606-5	
Propidium iodide	Merck	P4170	
RPMI-1640 medium	Thermo Fisher Scientific	11875093	
Scalpel blade No 10 Sterile Stainless Steel	VWR International	SWAN3001	
Scalpel handle #3	World Precision Instruments	500236	
Tricaine	Merck	E10521	
Triton X-100	Merck	T8787	
Tween 20	Merck	P9416	
Vertical Micropipette Puller	Shutter instrument	P-30	