

Materials List for:

3-D Cell Culture System for Studying Invasion and Evaluating Therapeutics in Bladder Cancer

Yin Wang¹, Mark L. Day², Diane M. Simeone³, Phillip L. Palmbo¹

¹Departments of Internal Medicine, Hematology/Oncology Division, Rogel Cancer Center, University of Michigan Medical Center

²Department of Urology, Division of GU Oncology, Rogel Cancer Center, University of Michigan Medical Center

³Departments of Surgery and Pathology, Perlmutter Cancer Center, NYU Langone Health

Correspondence to: Phillip L. Palmbo at Ppalmbo@med.umich.edu

URL: <https://www.jove.com/video/58345>

DOI: [doi:10.3791/58345](https://doi.org/10.3791/58345)

Materials

Name	Company	Catalog Number	Comments
Human bladder cancer cell lines UM-UC9, UM-UC13, UM-UC14, UM-UC18, 253J			
DMEM cell culture medium	Thermo Fisher Scientific	11995065	
Fetal bovine serum	Thermo Fisher Scientific	26140079	
Antibiotic-Antimycotic (100x)	Thermo Fisher Scientific	15240062	
Trypsin-EDTA (0.25%), phenol red	Thermo Fisher Scientific	25200056	
Bovine serum albumin (BSA)	Sigma-Aldrich	A3803	
Phosphate-buffered saline (PBS), pH 7.4	Thermo Fisher Scientific	10010023	
Costar Ultral-low attachment 6-well cluster	Corning	3471	
Conventional inverted microscope	Carl Zeiss	491206-0001-000	General use for cell culture and checking spheroids
Collagen type 1 from rat tail, high concentration	Corning	354249	
Nunc Lab-Tek II Chambered Coverglass	Thermo Fisher Scientific	155382	
Confocal microscope	Carl Zeiss	LSM800	A confocal microscope with climate chamber, multi-location imaging, and Z-stack scanning function
Cryostat micromtome	Leica Biosystems	CM3050 S	
Zen 2 Image processing software	Carl Zeiss		
Paraformaldehyde solution	Electron Microscopy Sciences	15710	
ImmEdge Hydrophobic Barrier PAP Pen	Vector Laboratories	H4000	
O.C.T compound	Thermo Fisher Scientific	23730571	
Hoechst 33342 solution	Thermo Fisher Scientific	62249	
Anti-ATDC (Trim29) antibody	Sigma-Aldrich	HPA020053	
Anti-Cytokeratin 14 antibody	Abcam	ab7800	
Anti-Vimentin antibody	Abcam	ab24525	
ProLong Diamond			Mounting medium