

Materials List for:

Combined Use of Tail Vein Metastasis Assays and Real-Time In Vivo Imaging to Quantify Breast Cancer Metastatic Colonization and Burden in the Lungs

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URL: <https://www.jove.com/video/60687>

DOI: [doi:10.3791/60687](https://doi.org/10.3791/60687)

Materials

Name	Company	Catalog Number	Comments
10% SDS-PAGE Gel			For western blot
2.5% Trypsin	Gibco	15090-046	Trypsin for tissue culture
96 well flat bottom white assay plate	Corning	3922	For measuring luciferase and renilla signal in cultured cells
Alcohol wipes			For sterilizing the injection site before tail vein injections
BALB/C mice (female, 6 weeks)	Taconic	BALB-F	For tail vein metastatic colonization and burden assays
BSA regular	VWR Ameresco	97061-416	For western blot
Cell lysis buffer	Cell Signaling		For collecting protein samples
Celltreat Syringe Filters, PES 30mm, 0.45 µm	Celltreat	40-229749-CS	For filtering viral supernatant
CO ₂ and euthanasia chamber			For euthanasing the mice
Dual-luciferase reporter assay kit	Promega	E1960	For measuring luciferase and renilla signal in cultured cells
Dulbecco's phosphate buffered saline	Himedia	TS1006	For PBS
EDTA	VWR	97061-406	Used to dilute trypsin for tissue culture
FBS 100% US origin	VWR	97068-085	Component of complete growth media
Fujifilm LAS-3000 gel imager	Fujifilm		For western blot
GAPDH(14C10) Rabbit mAb	Cell Signaling	2118	For western blot
Goat anti-rabbit IgG (H+L) Secondary Antibody, HRP conjugate	Thermo Scientific	31460	For western blot
Human embryonic kidney cells, HEK-293FT	Invitrogen	R70007	Cell line used for packaging virus
HyClone DMEM/High glucose	GE Healthcare life sciences	SH30243.01	Component of complete growth media
Hygromycin B, Ultra Pure Grade	VWR Ameresco	97064-810	For antibiotic selection of infected cells
I3-P/i3 Multi-Mode Microplate/EA	Molecular devices		For measuring luciferase and renilla signal in cultured cells
Imagej			Used for image analysis of lung metastases: threshold set to 25 & 100
Immuno-Blot PVDF Membrane	Biorad	1620177	For western blot

Isoflurane			For mouse anesthesia
IVIS Lumina XRMS In Vivo Imaging System (in vivo live animal imaging device)	PerkinElmer	CLS136340	For in vivo imaging of metastatic burden
Leica M205 FA & Leica DCF3000 G (GFP and bright field filters)	Leica Microsystems		Microscope and camera for visualizing, counting and taking pictures of metastases in the lungs; 10X magnification, 3.5 sec exposure, 1.4 gain
L-Glutamine	Gibco	25030-081	Component of complete growth media
Lipofectamine 3000	Life technologies	L3000008	For YAP/TAZ-TEAD reporter transfection
Living Image 3.2 (image software program)	PerkinElmer		Software for IVIS
Mouse breast cancer cells, 4T1	Karmanos Cancer Institute	Aslakson, CJ et al.,1992	Mouse metastatic breast cancer cell line
Multi-Gauge version 3.0	Fujifilm		Software for quantifying western blot band intensity
Opti-MEM (transfection buffer)	Gibco	31985-062	For packaging virus and transfection
Penicillin Streptomycin	Gibco	15140-122	Component of complete growth media
Pierce BCA protein assay kit	Thermo Scientific	23225	For quantifying protein concentration
Pierce Phosphatase Inhibitor Mini Tablets	Thermo Scientific	A32957	Added to cell lysis buffer
Pierce Protease Inhibitor Mini Tablets	Thermo Scientific	A32953	Added to cell lysis buffer
Polybrene (hexadimethrine bromide)	Sigma-Aldrich	45-H9268	For infection
Puromycin	Sigma-Aldrich	45-P7255	For antibiotic selection of infected cells
Rodent restrainer			For restraining mice during tail vein injection
SDS-PAGE running buffer			For western blot
TAZ (V3886) Antibody	Cell Signaling	4883	For western blot
TBST buffer			For western blot
TC20 automated cell counter	Bio-Rad		For counting cells
Vectors			See Table 1 for complete list of vectors
VWR Inverted Fluorescence Microscope	VWR	89404-464	For visualizing fluorescence in ZsGreen labeled cells
Western transfer buffer			For western blot
XenoLight D-Luciferin K+ Salt	PerkinElmer	122799	Substrate injected into mice for in vivo bioluminescent IVIS images
X-tremeGENE 9 DNA transfection reagent (lipid solution for transfection)	Roche	6365787001	For packaging virus
YAP (D8H1X) XP Rabbit mAb	Cell Signaling	14074	For western blot