

Major Resources Tables

Animals (in vivo studies)

Species	Vendor or Source	Background Strain	Sex
mouse	Envigo	Nu/nu	Male

Note: Nude mice are only acting as a host for the grafted HUVEC-TIE2-L914F and for patient-derived cells, using male mice that do not have the hormone cycling is the best strategy to study vasculogenesis.

Drugs

Compound name	Vendor or Source	Catalog number
Drug library for in vitro screen	NCI (DTP program) plated compounds	
Ponatinib	LC Laboratory	P-7022
Bosutinib	NCI (DTP program) vialled compound	
Nilotinib	NCI (DTP program) vialled compound	
rapamycin	LC Laboratory	R-5000

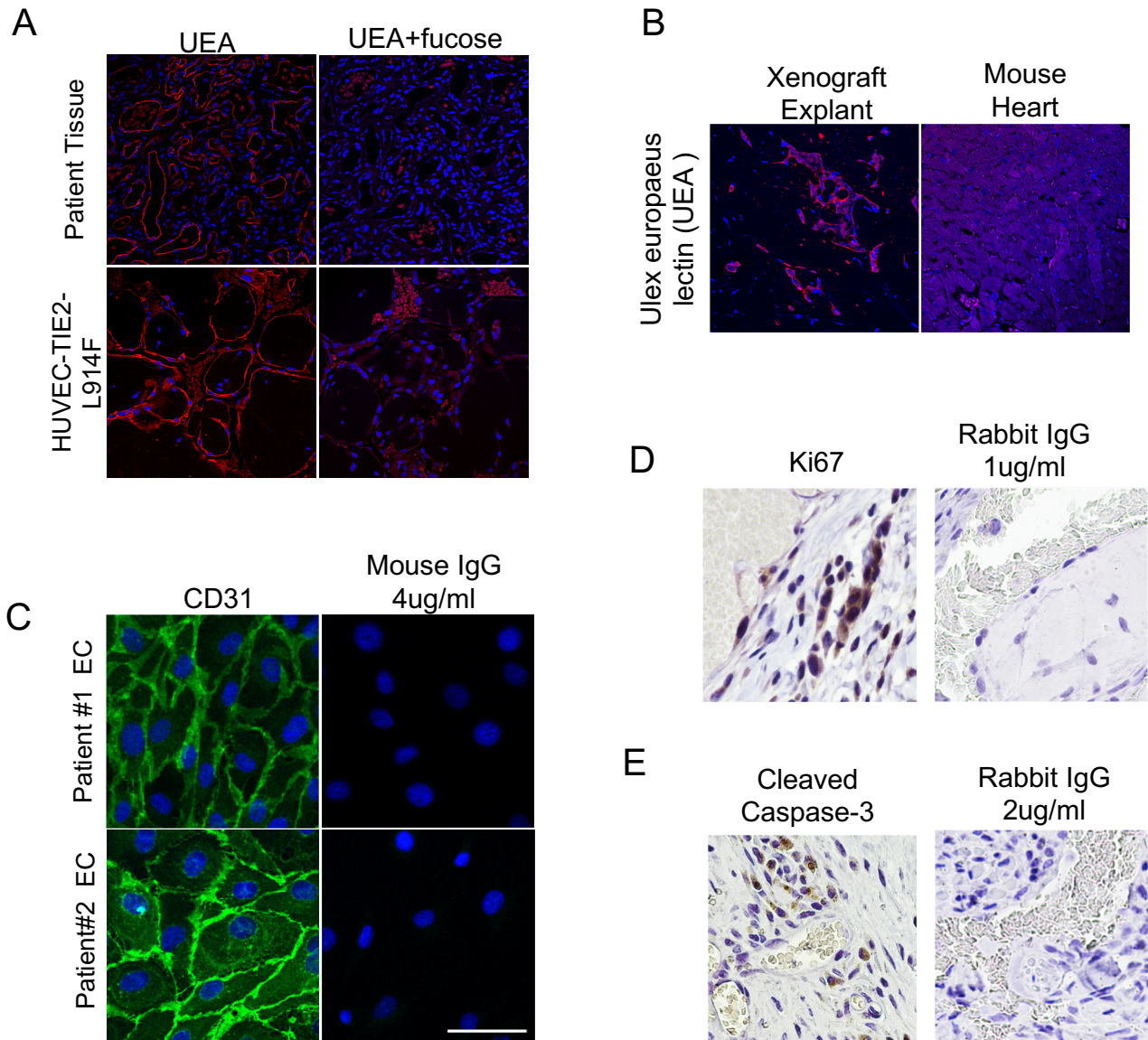
Antibodies

Target antigen	Vendor or Source	Catalog #	Working concentration	Lot # (preferred but not required)
p-cABL	Cell Signaling	2868	0.4 µg/ml	6
c-ABL	Cell Signaling	2862	1.5 µg/ml	16
ARG	Novus Biological	NBP1-18875	1 µg/ml	A1
p-TIE2	Cell Signaling	4221	0.002 µg/ml	4
TIE2	Cell Signaling	7403	0.175 µg/ml	1
p-AKT (Ser 473)	Cell Signaling	4060	0.05 µg/ml	23
p-AKT (Thr 308)	Cell Signaling	2965	0.35 µg/ml	18
AKT	Cell Signaling	9272	0.04 µg/ml	27
p-ERK	Cell Signaling	4370	0.17 µg/ml	17
ERK	Cell Signaling	9102	0.02 µg/ml	27
p-PLCg	Cell Signaling	2821	0.08 µg/ml	9
PLCg	Cell Signaling	2822	0.06 µg/ml	5
p-PDK1	Cell Signaling	3061	0.008 µg/ml	3
PDK1	Cell Signaling	3062	0.1 µg/ml	12
Tubulin	Sigma	T9026	10 µg/ml	083M4847V
β-Actin	Sigma	A5441	1 µg/ml	014M4759
Cleaved Caspase-3	Cell Signaling	9661S	2 µg/ml	43
Ki-67	Abcam	ab66155	1 µg/ml	GR134821-14
UEA	VectorLabs	B-1065	20 µg/ml	Z0806
CD31	Dako	M082329-2	2 µg/ml	20036220

Cultured Cells

Name	Vendor or Source	Sex (F, M, or unknown)
HUVEC-TIE2-L914F	Mikka Vikkula's laboratory	unknown
HUVEC-TIE2-WT	Mikka Vikkula's laboratory	unknown
HUVEC-NT	Mikka Vikkula's laboratory	unknown
VM patient derived endothelial cells (Patient#1 and Patient#2)	VM patient lesional tissue	Male and Female

Immunostaining Negative Controls



Immunostaining Negative Controls.

A. Immunofluorescent staining for Ulex europaeus agglutinin I (UEA) in red and DAPI in blue (left). We stained vascular anomaly patient tissue (top) and HUVEC-TIE2-L914F-derived VM lesion in mouse (bottom). Fucose was added as a negative control as it binds to UEA (right).

B. Immunofluorescent staining for Ulex europaeus agglutinin I (UEA) in red and DAPI in blue. We stained patient-derived VM-EC xenograft explant (left) and mouse heart (right) to show specificity of UEA for human-derived endothelium.

C. Immunofluorescent staining for CD31 in green and DAPI in blue (left) or mouse IgG in green and DAPI (right). We stained patient-derived VM-EC monolayer, patient#1 (top), patient#2 (bottom).

D. Immunohistochemical staining for Ki-67 (left) and rabbit IgG (right) on HUVEC-TIE2-L914F-derived VM lesion in mouse.

E. Immunohistochemical staining for Cleaved Caspase-3 (left) and rabbit IgG (right) on HUVEC-TIE2-L914F-derived VM lesion in mouse.