

Cover Page



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# Abbreviations

ACE	Angiotensin converting enzyme
ActR	Activin Receptor
AGT	Angiotensinogen
AGTR	Angiotensinogen receptor
AKT	Protein Kinase B
ALK/ACVL	Activin receptor-Like Kinase
AT-AAs	Angiotensin receptor activating autoantibodies
BAEC	Bovine aortic endothelial cell
Bax	Bcl2 associated X gene
Bcl2	B-Cell CLL/Lymphoma 2
bFGF	Basic Fibroblast Growth Factor
BMP	Bone morphogenetic protein
BMPER	BMP endothelial cell precursor-derived regulator
BMPRII	BMP receptor II
BRE	BMP reporter element
caALK5	Constitutively active ALK5
CASP6	Caspase 6
CCL5	Chemokine (C-C Motif) Ligand 5
CRC	Colorectal cancer
E	Embryonic day
EB	Embryonic body
EC	Endothelial cell
ECM	Extracellular matrix
ELISA	Enzyme-linked immunosorbent assay
Endo-MT	Trans-differentiation of endothelial cell
Eng-Fc	recombinant endoglin-Fc chimera
eNOS	Endothelial nitric oxide synthase
ERCF	Immortalized HUVEC
ERK	Early response kinase/mitogen-activated protein kinase 1
ESC	Embryonic stem cell
FACS	Fluorescent-activated cell sorting
FAK	Focal adhesion kinase
FBS	Fetal bovine serum
Flk-1	Fetal liver kinase 1/ Vascular endothelial growth factor receptor 2
GAPDH	Glyceraldehyde-3-phosphate dehydrogenase
HELLP	Hemolysis, elevated liver enzymes and low platelets
HHT	Hereditary Hemorrhagic Telangiectasia
HO-1	heme-oxygenase 1
HUVEC	Human umbilical vein endothelial cell
ID1	Inhibitor of DNA binding 1

## Abbreviations

Ig	Immunoglobulin
IL	interleukin
I-Smad	Inhibitory Smad
ITGA5	Integrin $\alpha$ 5
ITGB3	Integrin $\beta$ 3
IUGR	Intrauterine growth restriction
LTBP	Latent TGF- $\beta$ binding protein
MAEC	Mouse aortic endothelial cell
MEEC	Mouse embryonic endothelial cell
MEF	Mouse embryonic fibroblast
MFS	Marfan Syndrome
MMP	Matrix metalloproteinase
MVEC	Human normal dermal microvascular endothelial cell
PAH	Pulmonary arterial hypertension
PAI-1	Plasminogen activator inhibitor type 1
PBS	Phosphate Buffered Saline
PCR	Polymerase chain reaction
PDCD4	Programmed cell death 4
PECAM-1/CD31	Platelet/endothelial cell adhesion molecule 1
PI3 Kinase	Phosphoinositide-3-kinase
PLC $\gamma$	Phospholipase C gamma
PIGF	Placental growth factor
qPCR	Real-time quantitative reverse transcription PCR
RAS	The renin-angiotensin system
R-Smad	Regulatory Smad
RT-PCR	Reverse transcription PCR
RUPP	Reduced uterine perfusion pressure
sEng	soluble Endoglin
sFlt-1	Soluble fms-related tyrosine kinase 1/soluble VEGFR1
shRNA	short hairpin RNA
Smad	Small mothers against decapentaplegic
SMC	Smooth muscle cell
Src	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog
StAMP	Statin to ameliorate early onset pre-eclampsia
TBST	Tris-buffered saline and tween 20
TGF- $\beta$	Transforming growth factor $\beta$
T $\beta$ RI	Transforming growth factor $\beta$ receptor I
T $\beta$ RII	Transforming growth factor $\beta$ receptor II
VEGF	Vascular growth factor
VEGFR2	Vascular growth factor receptor 2
VSMC	Vascular smooth muscle cell
ZP	Zona pellucida