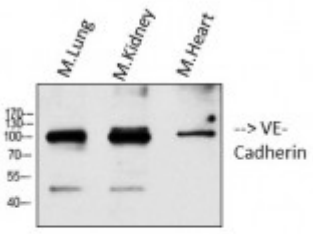
Anti-VE-Cadherin antibody



Western Blot (WB) analysis of 1. Mouse lung 2. Mouse kidney 3. Mouse heart cells using VE-Cadherin Polyclonal Antibody. (STJ97306)

Description	VE-Cadherin is a protein encoded by the CDH5 gene which is approximately 87,5 kDa. VE-Cadherin is localised to the cell junction and cell membrane. It is involved in cell junction organization, blood-brain barrier and immune cell transmigration, ERK signalling and RET signalling. It is a calcium-dependent cell-cell adhesion molecule that is comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. It functions by allowing cells the ability to adhere in a homophilic manner and plays a role in endothelial adherent junction assembly and maintenance. VE-Cadherin is expressed in the heart, nervous system, bone marrow, muscle and lung. Mutations in the CDH5 gene may result in periapical granuloma. STJ97306 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of VE-Cadherin protein.

Model	STJ97306
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human VE-Cadherin.
Immunogen Region	391-440 aa, Internal
Gene ID	1003
Gene Symbol	CDH5
Dilution range	WB 1:500-1:2000ELISA 1:10000

Specificity	VE-Cadherin Polyclonal Antibody detects endogenous levels of VE-Cadherin protein.
Tissue Specificity	Endothelial tissues and brain.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Cadherin-5 7B4 antigen Vascular endothelial cadherin VE-cadherin CD antigen CD144
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:1764OMIM:601120
Alternative Names	Cadherin-5 7B4 antigen Vascular endothelial cadherin VE-cadherin CD antigen CD144
Function	Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. Acts in concert with KRIT1 to establish and maintain correct endothelial cell polarity and vascular lumen. These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B. Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction.
Sequence and Domain Family	Three calcium ions are usually bound at the interface of each cadherin domain and rigidify the connections, imparting a strong curvature to the full-length ectodomain.
Cellular Localization	Cell junction Cell membrane. Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions.
Post-translational Modifications	Phosphorylated on tyrosine residues by KDR/VEGFR-2. Dephosphorylated by PTPRB . O-glycosylated.