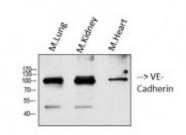


Anti-VE-Cadherin antibody



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 <u>1003</u>

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 Phosphorylated on tyrosine residues by KDR/VEGFR-2. Dephosphorylated

Modifications by PTPRB . O-glycosylated.