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VE-Cadherin (Phospho-Tyr731) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52553

Product Information

Application	WB, IHC
Primary Accession	P33151
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	87528

Additional Information

Gene ID	1003
Other Names	Cadherin-5, 7B4 antigen, Vascular endothelial cadherin, VE-cadherin, CD144, CDH5
Dilution	WB~~1:1000 IHC~~1:50~100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	CDH5 (HGNC:1764)
Function	Cadherins are calcium-dependent cell adhesion proteins (By similarity). They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types (PubMed:21269602). This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions (By similarity). It associates with alpha-catenin forming a link to the cytoskeleton (PubMed:10861224). Plays a role in coupling actin fibers to cell junctions in endothelial cells, via acting as a cell junctional complex anchor for AMOTL2 and MAGI1 (By similarity). Acts in concert with KRIT1 and PALS1 to establish and maintain correct endothelial cell polarity and vascular lumen (By similarity). These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B (PubMed:20332120). Positively regulates reorientation of actin stress fibers and endothelial cell reorientation in response to cellular mechantransduction (PubMed:25795300). Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction (PubMed:20332120). Associates with CTNND1/p120-catenin to control CADH5

endocytosis (By similarity).

Cellular Location

Cell junction, adherens junction. Cell membrane; Single-pass type I membrane protein Cytoplasm {ECO:0000250|UniProtKB:P55284}. Note=Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions.

Tissue Location

Expressed in endothelial cells (at protein level) (PubMed:27338829). Expressed in the brain (PubMed:2059658)

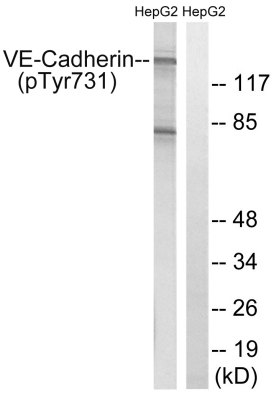
Background

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.

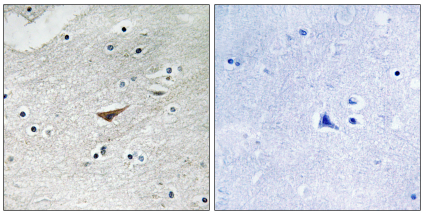
References

Breviario F.,et al.Arterioscler. Thromb. Vasc. Biol. 15:1229-1239(1995).
Ali J.,et al.Microcirculation 4:267-277(1997).
Shimoyama Y.,et al.Biochem. J. 349:159-167(2000).
Suzuki S.,et al.Cell Regul. 2:261-270(1991).
Lampugnani M.G.,et al.J. Cell Biol. 118:1511-1522(1992).

Images



Western blot analysis of extracts from HepG2 cells, treated with Na3VO4 (0.3mM, 40mins), using VE-Cadherin (Phospho-Tyr731) antibody.



Immunohistochemistry analysis of paraffin-embedded human brain tissue using VE-Cadherin (Phospho-Tyr731) antibody.

Citations

- SARS-CoV-2 spike spurs intestinal inflammation via VEGF production in enterocytes

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.