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Product datasheet for TA336811

TIE2 (TEK) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, Simple Western, WB
Recommended Dilution:	Western Blot: 1:2500, Immunohistochemistry-Paraffin: 1:200, Simple Western: 1:50, Immunohistochemistry: 1:200
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A genomic peptide made to an internal region of the human TIE2 protein (within residues 250-400). [Swiss-Prot Q02763]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	TEK receptor tyrosine kinase
Database Link:	NP_000450 Entrez Gene 21687 MouseEntrez Gene 7010 Human Q02763

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Background: TIE2 (tyrosine-protein kinase receptor TIE-2) is an endothelial-selective RTK that is essential to angiopoietin (ANGPT)/TIE2 system which constitutes transmembrane endothelial tyrosine kinase TIE2 and its circulating ligands (ANGPT-1, -2 and ANGPT-3, -4). Activation/phosphorylation state of TIE2 regulates the baseline endothelial quiescence and its response to pathogens as well as cytokines, and TIE2 phosphorylation is largely controlled by the ratio of agonistic ligand ANGPT-1 and competitive inhibitor ANGPT-2. TIE2 exists as homodimer or heterodimer (with TIE1) and interacts with ANGPT1, ANGPT2, ANGPT4, TEK , TNIP2, SHC1, PTPRB, DOK2, GRB2, GRB7, GRB14, PIK3R1 and PTPN11/SHP2 etc for exerting its diverse biological functions. TIE2 regulates angiogenesis, endothelial cell survival, proliferation, migration, adhesion, actin cytoskeleton reorganization, and maintenance of vascular quiescence. It exerts anti-inflammatory effects by preventing the leakage of proinflammatory plasma proteins and leukocytes from blood vessels, and activates or inhibits angiogenesis, depending on the context (inhibits angiogenesis and promotes vascular stability in quiescent vessels, where endothelial cells have tight contacts). Targeted deletion of TIE2 or its major agonist ligand, Angpt-1, results in embryonic lethality in mice characterized by defects in blood vessel maturation, lack of recruitment of supporting pericytes and impaired basement membrane formation.

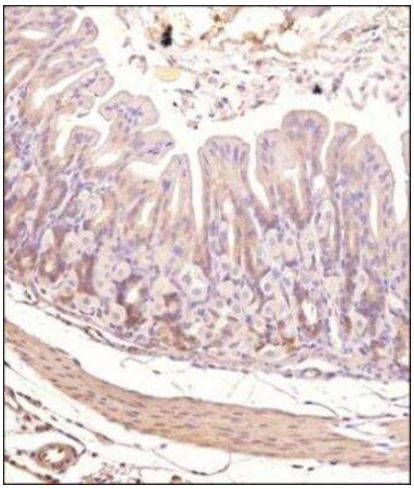
Synonyms: CD202B; TIE-2; TIE2; VMCM; VMCM1

Note: This TIE2 antibody is useful for Western blot where a band is seen ~150 kDa, and Immunohistochemistry-paraffin embedded sections where membrane, cytoplasmic and nuclear signal is seen in mouse intestines. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.

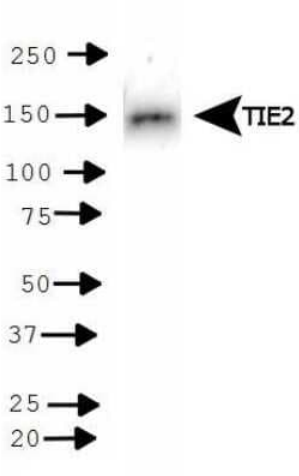
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane

Product images:

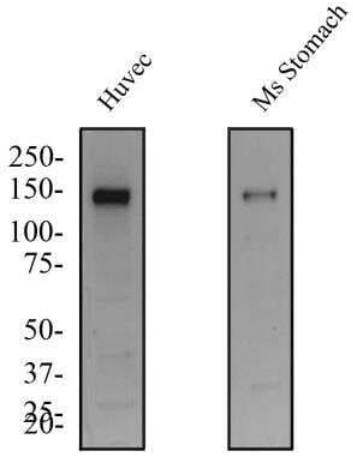
Simple Western: Tie-2 Antibody TA336811 - Simple Western lane view shows a specific band for Tie-2 in 0.5 mg/ml of HUVEC lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Immunohistochemistry-Paraffin: Tie-2 Antibody TA336811 - Analysis of a FFPE tissue section of mouse stomach using 1:200 dilution of Tie-2 antibody (TA336811). The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin.



Western Blot: Tie-2 Antibody TA336811 - Detection of TIE2 in Huvec cell lysate



Western Blot: Tie-2 Antibody TA336811 - Total protein from human Huvec cells and mouse stomach tissue was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 1.0 ug/ml anti-TIE2 in 1% non-fat milk in TBST and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.