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ANGPT1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10451b

Product Information

Application	WB, E
Primary Accession	Q15389
Other Accession	Q9BDY8, O08538, O18920, NP_001137.2
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Mouse, Pig, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB17673
Calculated MW	57513
Antigen Region	374-402

Additional Information

Gene ID	284
Other Names	Angiopoietin-1, ANG-1, ANGPT1, KIAA0003
Target/Specificity	This ANGPT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 374-402 amino acids from the C-terminal region of human ANGPT1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ANGPT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ANGPT1
Synonyms	KIAA0003
Function	Binds and activates TEK/TIE2 receptor by inducing its dimerization and

tyrosine phosphorylation. Plays an important role in the regulation of angiogenesis, endothelial cell survival, proliferation, migration, adhesion and cell spreading, reorganization of the actin cytoskeleton, but also maintenance of vascular quiescence. Required for normal angiogenesis and heart development during embryogenesis. After birth, activates or inhibits angiogenesis, depending on the context. Inhibits angiogenesis and promotes vascular stability in quiescent vessels, where endothelial cells have tight contacts. In quiescent vessels, ANGPT1 oligomers recruit TEK to cell- cell contacts, forming complexes with TEK molecules from adjoining cells, and this leads to preferential activation of phosphatidylinositol 3-kinase and the AKT1 signaling cascades. In migrating endothelial cells that lack cell-cell adhesions, ANGT1 recruits TEK to contacts with the extracellular matrix, leading to the formation of focal adhesion complexes, activation of PTK2/FAK and of the downstream kinases MAPK1/ERK2 and MAPK3/ERK1, and ultimately to the stimulation of sprouting angiogenesis. Mediates blood vessel maturation/stability. Implicated in endothelial developmental processes later and distinct from that of VEGF. Appears to play a crucial role in mediating reciprocal interactions between the endothelium and surrounding matrix and mesenchyme.

Cellular Location Secreted.

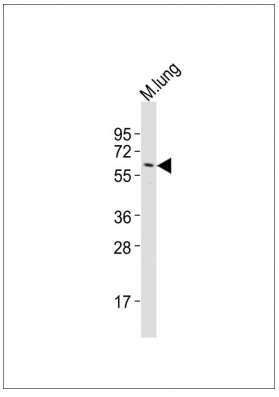
Background

Angiopoietins are proteins with important roles in vascular development and angiogenesis. All angiopoietins bind with similar affinity to an endothelial cell-specific tyrosine-protein kinase receptor. The protein encoded by this gene is a secreted glycoprotein that activates the receptor by inducing its tyrosine phosphorylation. It plays a critical role in mediating reciprocal interactions between the endothelium and surrounding matrix and mesenchyme. The protein also contributes to blood vessel maturation and stability, and may be involved in early development of the heart.

References

Fang, X., et al. J. Biol. Chem. 285(34):26211-26222(2010)
Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)
Choe, J.Y., et al. Joint Bone Spine 77(4):340-344(2010)
Roberts, K.E., et al. Gastroenterology 139(1):130-139(2010)
Chen, J., et al. Hum. Mol. Genet. 19(12):2524-2533(2010)

Images



Anti-ANGPT1 Antibody (C-term)at 1:2000 dilution + mouse lung lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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