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ANGPT1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP10451b

Specification

ANGPT1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q15389
Other Accession	NP_001137.2

ANGPT1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 284

Other Names
Angiopoietin-1, ANG-1, ANGPT1, KIAA0003

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ANGPT1 Antibody (C-term) Blocking Peptide - 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.

ANGPT1 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ANGPT1 Antibody (C-term) Blocking Peptide - Images

ANGPT1 Antibody (C-term) Blocking Peptide - Background

Angiopoietins are proteins with important roles invascular development and angiogenesis. All angiopoietins bind withsimilar affinity to an endothelial cell-specific tyrosine-proteinkinase receptor. The protein encoded by this gene is a secretedglycoprotein that activates the receptor by inducing its tyrosinephosphorylation. It plays a critical role in mediating reciprocalinteractions between the endothelium and surrounding matrix andmesenchyme. The protein also contributes to blood vessel maturationand stability, and may be involved in early development of theheart.

ANGPT1 Antibody (C-term) Blocking Peptide - 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)