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ANGPT1 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF3302a

Specification

ANGPT1 Antibody (internal region) - Product Information

Application	**WB**
Primary Accession	Q15389
Other Accession	NP_001137.2, 284, 11600 (mouse), 89807 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**57513**

ANGPT1 Antibody (internal region) - Additional Information

Gene ID 284

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

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ANGPT1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

ANGPT1 Antibody (internal region) - 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.

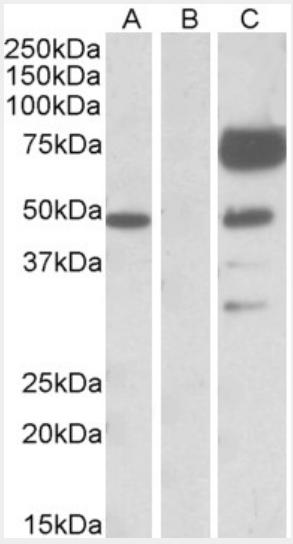
Cellular Location
Secreted.

ANGPT1 Antibody (internal region) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ANGPT1 Antibody (internal region) - Images



HEK293 lysate (10ug protein in RIPA buffer) overexpressing Human ANGPT1 with DYKDDDDK tag probed with AF3302a(1ug/ml) in Lane A and probed with anti- DYKDDDDK Tag (1/1000) in lane C. Mock-transfected HEK293 probed with AF3302a (1mg/ml) in Lane B. Primary incubations were for 1 hour. Detected by chemiluminescence.

ANGPT1 Antibody (internal region) - References

An autocrine linkage between matrix metalloproteinase-14 and Tie-2 via ectodomain shedding

modulates angiopoietin-1-dependent function in endothelial cells. Onimaru M, Yonemitsu Y, Suzuki H, Fujii T, Sueishi K, Arteriosclerosis, thrombosis, and vascular biology 2010 Apr 30 (4): 818-26. PMID: 20056911