

**ANGPT1 / Angiopoietin-1 Antibody (Internal)**  
**Goat Polyclonal Antibody**  
**Catalog # ALS14686****Specification**

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**ANGPT1 / Angiopoietin-1 Antibody (Internal) - Product Information**

Application	WB, IHC-P, E
Primary Accession	<a href="#">Q15389</a>
Reactivity	Human, Mouse, Rabbit, Monkey, Horse, Dog
Host	Goat
Clonality	Polyclonal
Calculated MW	58kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A E~~N/A

**ANGPT1 / Angiopoietin-1 Antibody (Internal) - Additional Information****Gene ID** 284**Other Names**

Angiopoietin-1, ANG-1, ANGPT1, KIAA0003

**Target/Specificity**

Human ANGPT1 / Angiopoietin-1.

**Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

**Precautions**

ANGPT1 / Angiopoietin-1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**ANGPT1 / Angiopoietin-1 Antibody (Internal) - 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, ANGPT1 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.

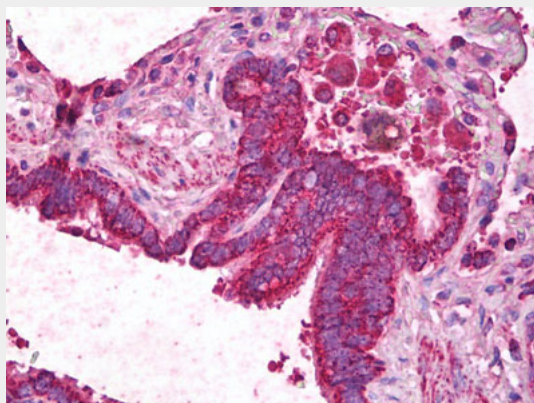
#### **Cellular Location** Secreted.

### **ANGPT1 / Angiopoietin-1 Antibody (Internal) - Protocols**

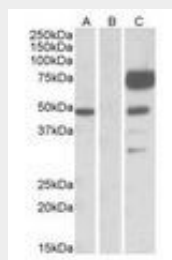
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **ANGPT1 / Angiopoietin-1 Antibody (Internal) - Images**



Anti-ANGPT1 / Angiopoietin-1 antibody IHC of human lung, respiratory epithelium.



HEK293 lysate (10 ug protein in RIPA buffer) overexpressing Human ANGPT1 with DYKDDDDK tag...

### **ANGPT1 / Angiopoietin-1 Antibody (Internal) - Background**

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#### **ANGPT1 / Angiopoietin-1 Antibody (Internal) - References**

Davis S.,et al.Cell 87:1161-1169(1996).  
Nakatsukasa M.,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.  
Shan Z.X.,et al.Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.  
Nomura N.,et al.DNA Res. 1:27-35(1994).  
Bechtel S.,et al.BMC Genomics 8:399-399(2007).