

Anti-Angiopoietin 1 (RABBIT) Antibody
Angiopoietin 1 Antibody
Catalog # ASR3695**Specification**

Anti-Angiopoietin 1 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Mouse
Reactivity	Human, Mouse
Clonality	Polyclonal
Application	WB, IHC, E, IP, I, LCI
Application Note	Anti-Angiopoietin-1 Antiserum has been tested in ELISA, western blot, immunohistochemistry, and immunofluorescence and is suitable for other antibody based assays. A 1:500 dilution is recommended for western blotting. The reaction of this antiserum directly with cell supernatants may result in high background due to reactivity of components in the serum. This can be alleviated by first immunoprecipitating the antibody:antigen complex and then detecting the antigen. This method results in a very clean and strong signal. Both Ang-1 and Ang-2 proteins have predicted molecular weights of approximately 57 kDa and appear on western blots close to their predicted molecular weights. In some instances additional bands may be seen at approximately 75 kDa which represent highly glycosylated forms of the protein that migrate at a higher apparent molecular weight.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to a N-terminus region near aa 15-45 of mouse angiopoietin 1 protein conjugated to KLH using maleimide. A residue of cysteine was added to the amino terminal end to facilitate coupling.
Preservative	0.01% (w/v) Sodium Azide

Anti-Angiopoietin 1 (RABBIT) Antibody - Additional Information

Gene ID 11600

Other Names
11600

Purity

Anti-Angiopoietin 1 is directed against mouse angiopoietin-1 and shows no reactivity with mouse angiopoietin-2. This reagent cross-reacts with human angiopoietin 1. Partially cross reactivity is noted with human angiopoietin 2. This product was prepared from monospecific antiserum by a delipidation and defibrination.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Angiopoietin 1 (RABBIT) Antibody - Protein Information

Name Angpt1

Synonyms Agpt

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 (By similarity).

Cellular Location

Secreted.

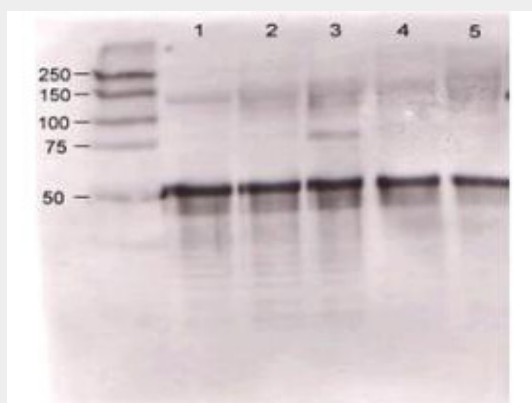
Anti-Angiopoietin 1 (RABBIT) Antibody - Protocols

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](#)

Anti-Angiopoietin 1 (RABBIT) Antibody - Images



Rabbit anti-Ang-1 was used at a 1:500 dilution to detect mouse Ang-1 by western blot against supernatants of mouse angiopoietin-expressing endothelial cells. Lane 1 - wt endothelial cells. Lane 2 - mouse Ang-1 (clone 1-8) expressing cells. Lane 3 - mouse Ang-1 (clone 1-15) expressing cells. Lane 4 - mouse Ang-2 (clone 2-9) expressing cells. Approximately 20 µg of each lysate was used for 10% SDS-PAGE. Immunoprecipitation preceded the reaction with primary antibody at room temperature for 1 h. After subsequent washing, a 1:5,000 dilution of HRP conjugated Gt-a-Rabbit IgG (611-103-122) preceded color development.

Anti-Angiopoietin 1 (RABBIT) Antibody - Background

Anti-Angiopoietin-1 Antibody, which recognizes Angiopoietin-1 (Ang-1), has importance in the development of the endothelium by regulating tyrosine phosphorylation of the membrane receptor Tie-2/Tek. Ang-1 binding to Tie-2/Tek causes phosphorylation of the receptor. Ang-2 competes for this binding, and thus blocks receptor phosphorylation. Ang-1 has a potential fibrinogen-like domain at the carboxyl terminus and coiled-coil regions in the amino terminus. Ang-1 is prominently expressed in the myocardium of atrium and ventricle, mesenchymal and smooth muscle cells surrounding most blood vessels, and lung. In the adult, Ang-1 is also expressed in the heart and liver. Anti-Angiopoietin-1 Antiserum antibody is suitable for cardiovascular research.