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ANG Antibody
Catalog # ASC11527

Specification

ANG Antibody - Product Information

Application	**WB, IF**
Primary Accession	P03950
Other Accession	NP_001136, 4557313
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**16 kDa KDa**
Application Notes	**ANG antibody can be used for detection of ANG by Western blot at 1 - 2 µg/mL. For immunofluorescence start at 20 µg/mL.**

ANG Antibody - Additional Information

Gene ID **283**

Target/Specificity
ANG; Two alternatively spliced transcript variants have been observed.

Reconstitution & Storage
ANG antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
ANG Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ANG Antibody - Protein Information

Name ANG

Synonyms RNASE5

Function
Ribonuclease that cleaves tRNA within anticodon loops to produce tRNA-derived stress-induced fragments (tiRNAs) which inhibit protein synthesis and triggers the assembly of stress granules (SGs) (PubMed:1400510, PubMed:21855800). Binds to actin on the surface of endothelial cells; once bound, angiogenin is endocytosed and translocated to the nucleus (PubMed:8127865). Stimulates ribosomal RNA synthesis including that containing the initiation site sequences of 45S rRNA (PubMed:12051708). Angiogenin induces vascularization of normal and malignant tissues (PubMed:<a

href="http://www.uniprot.org/citations/19354288" target="_blank">19354288). Angiogenic activity is regulated by interaction with RNH1 in vivo (PubMed:19354288).

Cellular Location
Cytoplasmic vesicle, secretory vesicle lumen {ECO:0000250|UniProtKB:Q3TMQ6}. Secreted {ECO:0000250|UniProtKB:P10152}. Nucleus. Nucleus, nucleolus. Note=Rapidly endocytosed by target cells and translocated to the nucleus where it accumulates in the nucleolus and binds to DNA (PubMed:12051708)

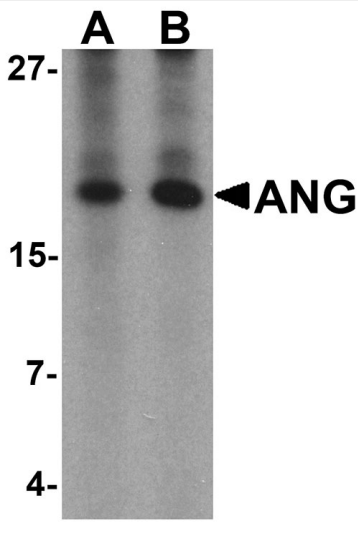
Tissue Location
Expressed predominantly in the liver. Also detected in endothelial cells and spinal cord neurons

ANG Antibody - Protocols

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

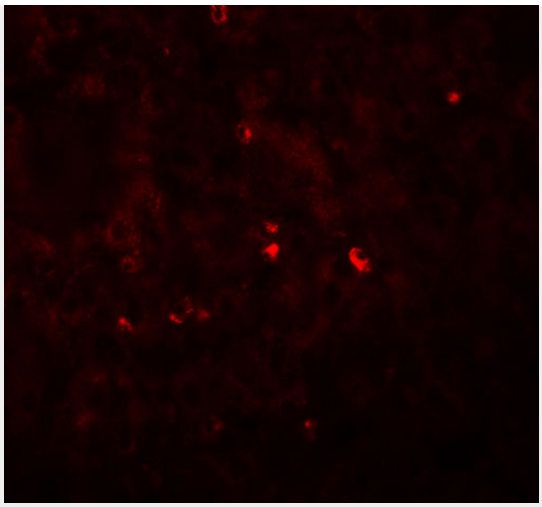
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ANG Antibody - Images



Western blot analysis of ANG in rat liver tissue lysate with Ang antibody at (A) 1 and (B) 2 µg/mL.

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Immunofluorescence of ANG in human liver tissue with ANG antibody at 20 µg/mL.

ANG Antibody - Background

ANG Antibody: Angiogenin (ANG or ANG I) is important for the process of neovascularization and formation of new blood vessels. ANG is similar to pancreatic ribonuclease A and functions as a tRNA-specific ribonuclease that abolishes protein synthesis by specifically hydrolyzing cellular tRNAs. It interacts with endothelial cell-surface actin and may cause changes in the cell cytoskeleton. ANG is thought to be involved in the development of solid tumors and its antagonists are capable of inhibiting tumor growth. Defects in ANG are the cause of susceptibility to amyotrophic lateral sclerosis type 9 (ALS9). Angiogenin is a genetic link between ALS and PD.

ANG Antibody - References

Moroianu J and Riordan JF. Identification of the nucleolar targeting signal of human angiogenin. Biochem. Biophys. Res. Commun. 1994; 203:1765-72.
Hu G, Riordan JF, and Vallee BL. Angiogenin promotes invasiveness of cultured endothelial cells by stimulation of cell-associated proteolytic activities. Proc. Natl. Acad. Sci. USA 1994; 91:12096-100.
Pyatibratov MG and Kostyukova AS. New insights into the role of angiogenin in actin polymerization. Int. Rev. Cell. Mol. Biol. 2012; 295:175-98.
Li S, Ibaragi S, and Hu GF. Angiogenin as a molecular target for the treatment of prostate cancer. Curr. Cancer Ther. Rev. 2011; 7:83-90.