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# ANGPT2 Antibody
**Catalog # ASC11444**

## Specification

### ANGPT2 Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC** |
| Primary Accession | O15123 |
| Other Accession | NP_001138, 4557315 |
| Reactivity | **Human, Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Calculated MW | **Predicted: 55 kDa**<br><br>**Observed: 58 kDa KDa** |
| Application Notes | **ANGPT2 antibody can be used for detection of ANGPT2 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.** |

### ANGPT2 Antibody - Additional Information

Gene ID **285**

**Target/Specificity**
ANGPT2; At least three isoforms of ANGPT2 are known to exist; this antibody will detect all three isoforms.

**Reconstitution & Storage**
ANGPT2 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**
ANGPT2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### ANGPT2 Antibody - Protein Information

**Name** ANGPT2

**Function**
Binds to TEK/TIE2, competing for the ANGPT1 binding site, and modulating ANGPT1 signaling (PubMed:<a href="http://www.uniprot.org/citations/15284220" target="_blank">15284220</a>, PubMed:<a href="http://www.uniprot.org/citations/19116766" target="_blank">19116766</a>, PubMed:<a href="http://www.uniprot.org/citations/19223473" target="_blank">19223473</a>, PubMed:<a href="http://www.uniprot.org/citations/9204896" target="_blank">9204896</a>). Can induce tyrosine phosphorylation of TEK/TIE2 in the absence of ANGPT1 (PubMed:<a href="http://www.uniprot.org/citations/15284220" target="_blank">15284220</a>, PubMed:<a

href="http://www.uniprot.org/citations/19116766" target="_blank">19116766</a>, PubMed:<a href="http://www.uniprot.org/citations/19223473" target="_blank">19223473</a>, PubMed:<a href="http://www.uniprot.org/citations/9204896" target="_blank">9204896</a>). In the absence of angiogenic inducers, such as VEGF, ANGPT2-mediated loosening of cell-matrix contacts may induce endothelial cell apoptosis with consequent vascular regression. In concert with VEGF, it may facilitate endothelial cell migration and proliferation, thus serving as a permissive angiogenic signal (PubMed:<a href="http://www.uniprot.org/citations/15284220" target="_blank">15284220</a>, PubMed:<a href="http://www.uniprot.org/citations/19116766" target="_blank">19116766</a>, PubMed:<a href="http://www.uniprot.org/citations/19223473" target="_blank">19223473</a>, PubMed:<a href="http://www.uniprot.org/citations/9204896" target="_blank">9204896</a>). Involved in the regulation of lymphangiogenesis (PubMed:<a href="http://www.uniprot.org/citations/32908006" target="_blank">32908006</a>).

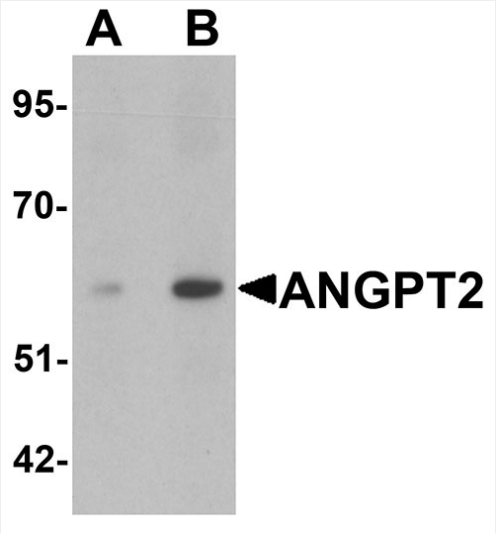
**Cellular Location**
Secreted.

## ANGPT2 Antibody - Protocols

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

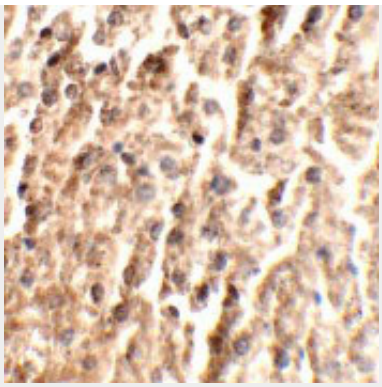
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## ANGPT2 Antibody - Images




Western blot analysis of ANGPT2 in human liver tissue lysate with ANGPT2 antibody at (A) 1 and (B) 2 µg/mL.

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Immunohistochemistry of ANGPT2 in mouse liver tissue with ANGPT2 antibody at 2.5 µg/mL.

## ANGPT2 Antibody - Background

ANGPT2 Antibody: Angiopoietin-2 (ANGPT2) is a member of the Ang family, a family of angiogenic factors that play major roles in angiogenesis during the development and growth of human cancers, but also during lymphangiogenesis. ANGPT2 is generally considered an antagonist of ANGPT1 and endothelial TEK tyrosine kinase (TIE-2, TEK). ANGPT2 disrupts the vascular remodeling ability of ANGPT1 and is thought to induce endothelial cell apoptosis, resulting in vessel regression. Expression of ANGPT2 has been linked to invasive and metastatic phenotypes of gliomas and other cancers.

## ANGPT2 Antibody - References

Hu B and Cheng SY. Angiopoetin-2: Development of inhibitors for cancer therapy. Curr. Oncol. Rep. 2009; 11:111-6.
Maisonpierre PC, Suri C, Jones PF, et al. Angiopoietin-2, a natural antagonist for Tie2 that disrupts in vivo angiogenesis. Science 1997; 277:55-60.
Lobov IB, Brooks PC, Lang RA, et al. Angiopoietin-2 displays VEGF-dependent modulation of capillary structure and endothelial cell survival in vivo. Proc. Natl. Acad. Sci. USA 2002; 99:11205-10.
Bach F, Uddin FJ, Burke D, et al. Angiopoietins in malignancy. Eur. J. Surg. Oncol. 2007; 33:7-15.