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ANGPT2 Antibody

Catalog # ASC11444

Product Information

Application	WB, E, IHC-P
Primary Accession	O15123
Other Accession	NP_001138, 4557315
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	56919
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ANGPT2 antibody can be used for detection of ANGPT2 by Western blot at 1 - 2 □g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 □g/mL.

Additional Information

Gene ID	285
Other Names	Angiopoietin-2, ANG-2, ANGPT2
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.

Protein Information

Name	ANGPT2
Function	Binds to TEK/TIE2, competing for the ANGPT1 binding site, and modulating ANGPT1 signaling (PubMed:15284220, PubMed:19116766, PubMed:19223473, PubMed:9204896). Can induce tyrosine phosphorylation of TEK/TIE2 in the absence of ANGPT1 (PubMed:15284220, PubMed:19116766, PubMed:19223473, PubMed:9204896). 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:15284220,

PubMed:19116766, PubMed:19223473, PubMed:9204896). Involved in the regulation of lymphangiogenesis (PubMed:32908006).

Cellular Location Secreted.

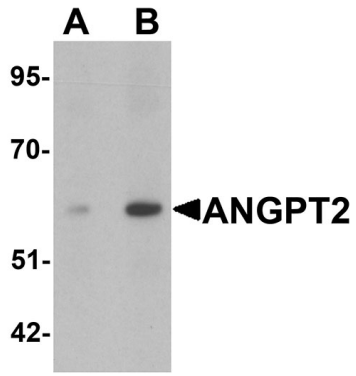
Background

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.

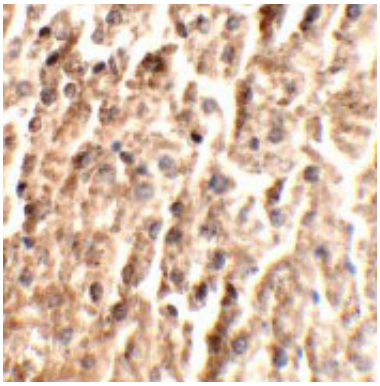
References

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.

Images



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



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