

Product datasheet

Anti-Angiopoietin 1 antibody ab8451

★★★★☆ [3 Abreviews](#) [53 References](#) [2 Images](#)

Overview

Product name	Anti-Angiopoietin 1 antibody
Description	Rabbit polyclonal to Angiopoietin 1
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, WB, ELISA
Species reactivity	Reacts with: Mouse, Human, Pig
Immunogen	Synthetic peptide corresponding to Mouse Angiopoietin 1 aa 21-40 (N terminal). Sequence: CNQRRNPENGRRYRNRIQHGG

Database link: [O08538](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

General notes

Angiopoietin-1 (Ang-1) and Angiopoietin-2 (Ang2) are important for 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 potential fibrinogen-like domain at the carboxy 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. To our knowledge, this is the first time that an Ang antibody recognises a band above 55 kD. This antibody (and the ang-2 antibody, [ab8452](#)) give a band at 75 kD which resembles the original size, because these are soluble highly glycosylated proteins, which should run higher than the calculated molecular weight of 55 kD.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
Purity	Whole antiserum
Primary antibody notes	Angiopoeitin-1 (Ang-1) and Antiopietin-2 (Ang2) are important for 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 potential fibrinogen-like domain at the carboxy 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. To our knowledge, this is the first time that an Ang antibody recognises a band above 55 kD. This antibody (and the ang-2 antibody, ab8452) give a band at 75 kD which resembles the original size, because these are soluble highly glycosylated proteins, which should run higher than the calculated molecular weight of 55 kD.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8451 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

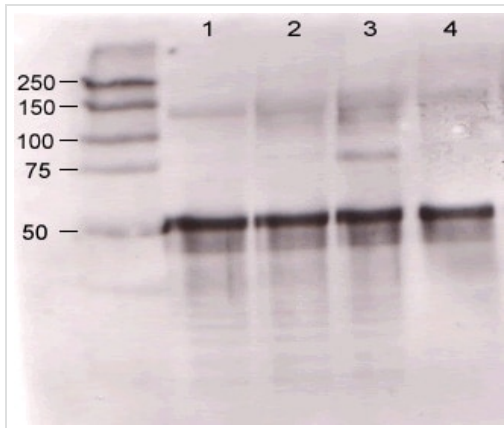
Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration.
WB	★★★★★ (1)	1/500. Detects a band of approximately 57 kDa. Using this antiserum with cell supernatants may result in high background due to other components in the serum. This can be alleviated by immunoprecipitating the antibody:antigen complex before detection, or precipitation using soluble Tie2. These methods result in a clean, strong signal. Both Ang-1 and Ang-2 proteins have predicted MW of 57 kDa and appear on blots close to
ELISA		Use at an assay dependent concentration.

Target

Function Binds and activates TIE2 receptor by inducing its tyrosine phosphorylation. 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. Mediates blood vessel maturation/stability. It may play an important role in the heart early development.

Sequence similarities	Contains 1 fibrinogen C-terminal domain.
Post-translational modifications	Glycosylated.
Cellular localization	Secreted.

Images



Western blot - Anti-Angiopoietin 1 antibody (ab8451)

This image is courtesy of Marion Scharpfenecker 2002

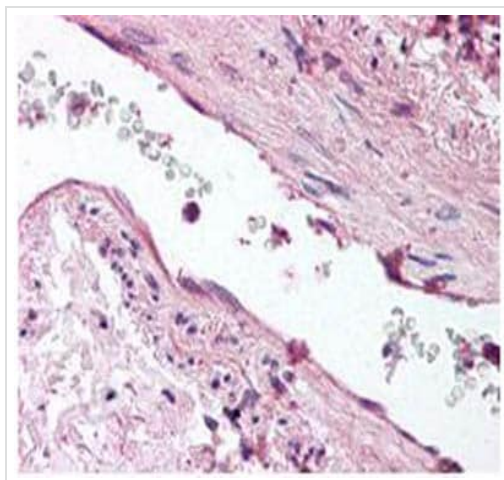
Supernatants of mouse-angiopoietin-expressing endothelial cells.

Lane 1 - wt endothelial cell

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Angiopoietin 1 antibody (ab8451)

ab8451 was diluted 1:500 to detect Angiopoietin 1 in human lung tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.

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