

## Anti-Angiopoietin-2/ANGPT2 Antibody Picoband®

Catalog Number: A00370

### About ANGPT2

ANGPT2, also known as ANG2 or Angiopoietin 2, is a protein that in humans is encoded by the ANGPT2 gene. It is mapped to 8p23.1. ANGPT2 is a naturally occurring antagonist of ANG1 that competes for binding to the TIE2 receptor and blocks ANGPT1-induced TIE2 autophosphorylation during vasculogenesis. The encoded protein disrupts the vascular remodeling ability of ANGPT1 and may induce endothelial cell apoptosis. ANGPT2 was significantly increased in plasma and alveolar edema fluid in adults with acute lung injury compared to controls or patients with hydrostatic pulmonary edema, tracheal. ANGPT2 was also significantly increased in neonates with respiratory distress syndrome who developed bronchopulmonary edema. It is also a mediator of epithelial necrosis with an important role in hyperoxic acute lung injury and pulmonary edema.

### Overview

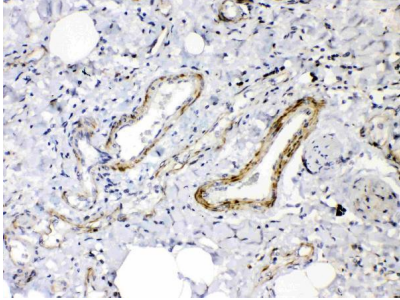
Product Name	Anti-Angiopoietin-2/ANGPT2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Angiopoietin-2/ANGPT2 Antibody Picoband® catalog # A00370. Tested in ELISA, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O15123

### Technical Details

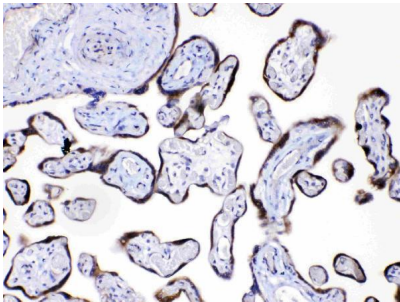
Immunogen	E. coli-derived human Angiopoietin-2 recombinant protein (Position: E180-D283). Human Angiopoietin-2 shares 75% and 77.9% amino acid (aa) sequence identity with mouse and rat Angiopoietin-2, respectively.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human ELISA(Cap) , 1-5ug/ml, Human, -

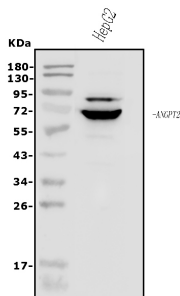
## Anti-Angiopoietin-2/ANGPT2 Antibody Picoband® (A00370) Images



IHC analysis of Angiopoietin-2 using anti-Angiopoietin-2 antibody (A00370). Angiopoietin-2 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Angiopoietin-2 Antibody (A00370) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

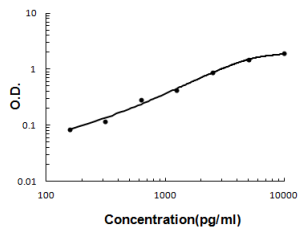


IHC analysis of Angiopoietin-2 using anti-Angiopoietin-2 antibody (A00370). Angiopoietin-2 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Angiopoietin-2 Antibody (A00370) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western blot analysis of ANGPT2 using anti-ANGPT2 antibody (A00370). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ANGPT2 antigen affinity purified polyclonal antibody (Catalog # A00370) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ANGPT2 at approximately 70KD. The expected band size for ANGPT2 is at 57KD.

Sandwich ELISA - Recombinant human Angiopoietin-2 protein standard curve. Use in combination with reagents from Human Angiopoietin-2 ELISA Kit EZ-Set (DIY Antibody Pairs) (EZ0657).



### 3 Publications Citing This Product

1. PubMed ID: 24759991, Bai X, Li X, Tian J, Zhou Z. Plos One. 2014 Apr 23;9(4):E96117. Doi: 10.1371/Journal.Pone.0096117. Ecollection 2014. Antiangiogenic Treatment Diminishes Renal Injury And Dysfunction Via Regulation Of Local Akt In Early Experimental Diabetes.
2. PubMed ID: 24040410, Li C, Fan J, Song X, Zhang B, Chen Y, Li C, Mi K, Ma H, Song Y, Tao X, Li G. Plos One. 2013 Sep 11;8(9):E75388. Doi: 10.1371/Journal.Pone.0075388. Ecollection 2013. Expression Of Angiopoietin-2 And Vascular Endothelial Growth Factor Receptor-3 Cor...
3. PubMed ID: 25395699, Beneficial Therapeutic Effect of Chinese Herbal Xinji'erkang Formula on Hypertension-Induced Renal Injury in the 2-Kidney-1-Clip Hypertensive Rats

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