BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Angiopoietin-2/ANGPT2 Antibody Picoband®

Catalog Number: A00370-2

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.

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Overview

Product Name	Anti-Angiopoietin-2/ANGPT2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Angiopoietin-2/ANGPT2 Antibody Picoband® catalog # A00370-2. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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

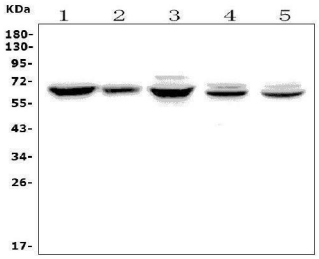
Immunogen	E.coli-derived human Angiopoietin-2/ANGPT2 recombinant protein (Position: N357-K404).

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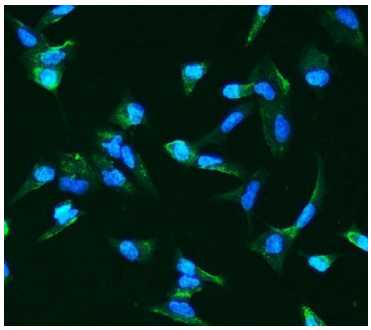
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti- Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human ELISA, 0.1-0.5ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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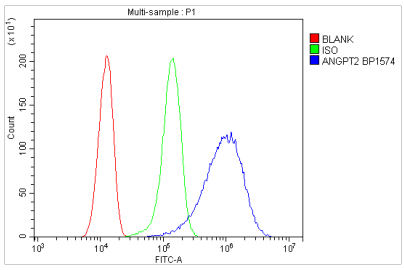
Anti-Angiopoietin-2/ANGPT2 Antibody Picoband® (A00370-2) Images



Western blot analysis of ANGPT2 using anti-ANGPT2 antibody (A00370-2). 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 50ug of sample under reducing conditions. Lane 1: human SW620 whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse spleen tissue 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 # A00370-2) 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 66KD. The expected band size for ANGPT2 is at 57KD.

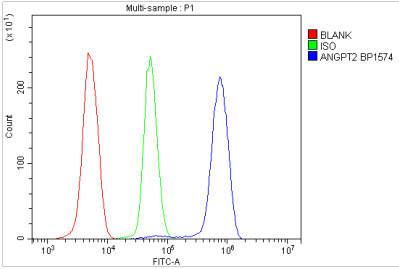


IF analysis of ANGPT2 using anti-ANGPT2 antibody (A00370-2). ANGPT2 was detected in immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-ANGPT2 Antibody (A00370-2) overnight at 4°C. DyLight®488 conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

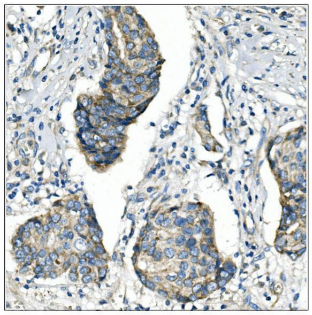


Flow Cytometry analysis of HeLa cells using anti-ANGPT2 antibody (A00370-2). Overlay histogram showing HeLa cells stained with A00370-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ANGPT2 Antibody (A00370-2, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

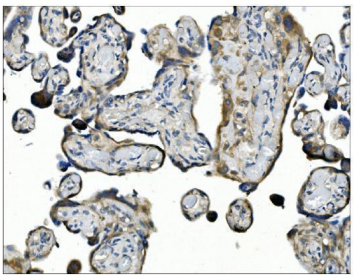
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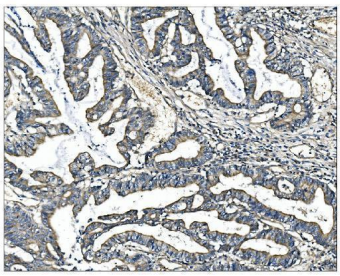
Flow Cytometry analysis of U937 cells using anti-ANGPT2 antibody (A00370-2). Overlay histogram showing U937 cells stained with A00370-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ANGPT2 Antibody (A00370-2, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IHC analysis of ANGPT2 using anti-ANGPT2 antibody (A00370-2). ANGPT2 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ANGPT2 Antibody (A00370-2) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of ANGPT2 using anti-ANGPT2 antibody (A00370-2). ANGPT2 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ANGPT2 Antibody (A00370-2) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of ANGPT2 using anti-ANGPT2 antibody (A00370-2). ANGPT2 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ANGPT2 Antibody (A00370-2) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

6 Publications Citing This Product

1. PubMed ID: 10.1620/tjem.224.221, Exercise Improves Recovery after Ischemic Brain Injury by Inducing the Expression of Angiopoietin-1 and

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Tie-2 in Rats

2. PubMed ID: 10.1007/s00198-014-2992-y, Local renin-angiotensin system is associated with bone mineral density of glucocorticoid-induced osteoporosis patients

3. PubMed ID: 10.1016/j.ejogrb.2006.09.018, Expression of heparanase and angiopoietin-2 in patients with endometriosis

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Anti-Angiopoietin-2/ANGPT2 Antibody

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