

## Anti-Anterior Gradient 2/AGR2 Antibody Picoband®

Catalog Number: A02922-2

### About AGR2

Anterior gradient protein 2 homolog (AGR-2), also known as secreted cement gland protein XAG-2 homolog, is a protein that in humans is encoded by the AGR2 gene. Anterior gradient homolog 2 was originally discovered in *Xenopus laevis*. In *Xenopus* AGR2 plays a role in cement gland differentiation, but in human cancer cell lines high levels of AGR2 correlate with downregulation of the p53 response, cell migration, and cell transformation. However, there have been other observations that AGR2 can repress growth and proliferation.

### Overview

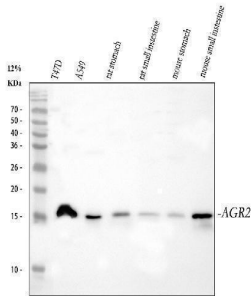
Product Name	Anti-Anterior Gradient 2/AGR2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Anterior Gradient 2/AGR2 Antibody Picoband® catalog # A02922-2. Tested in Flow Cytometry, IP, ICC/IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand 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	Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
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	O95994

### Technical Details

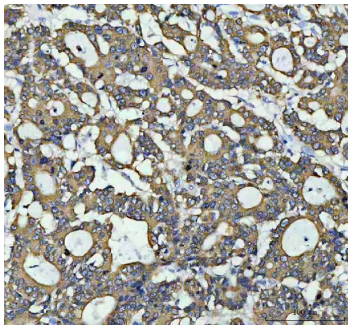
Immunogen	E.coli-derived human Anterior Gradient 2 recombinant protein (Position: R21-L175). Human Anterior Gradient 2 shares 93.5% amino acid (aa) sequence identity with mouse Anterior Gradient 2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) 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, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human

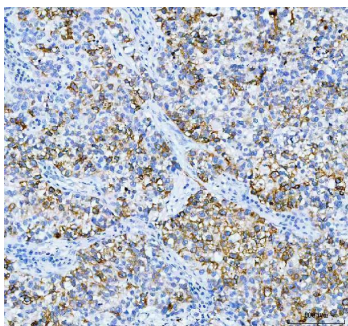
## Anti-Anterior Gradient 2/AGR2 Antibody Picoband® (A02922-2) Images



Western blot analysis of AGR2 using anti-AGR2 antibody (A02922-2). 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 30 ug of sample under reducing conditions. Lane 1: human T47D whole cell lysates, Lane 2: human A549 whole cell lysates, Lane 3: rat stomach tissue lysates, Lane 4: rat small intestine tissue lysates, Lane 5: mouse stomach tissue lysates, Lane 6: mouse small intestine tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-AGR2 antigen affinity purified polyclonal antibody (Catalog # A02922-2) 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 AGR2 at approximately 17 kDa. The expected band size for AGR2 is at 20 kDa.

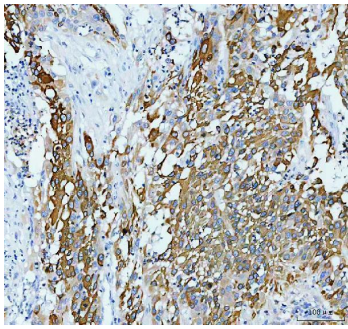


IHC analysis of AGR2 using anti-AGR2 antibody (A02922-2). AGR2 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-AGR2 Antibody (A02922-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

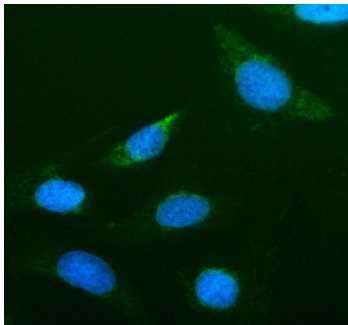


IHC analysis of AGR2 using anti-AGR2 antibody (A02922-2). AGR2 was detected in a paraffin-embedded section of human non-small cell lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-AGR2 Antibody (A02922-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

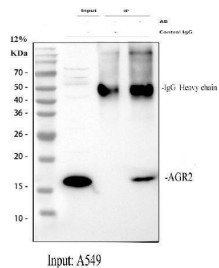
IHC analysis of AGR2 using anti-AGR2 antibody (A02922-2). AGR2 was detected in a paraffin-embedded section of human bladder infiltrating urothelial carcinoma with



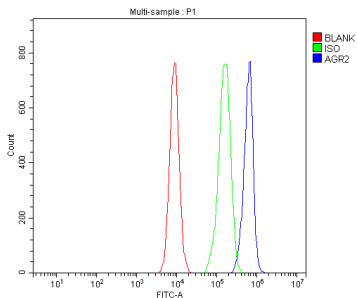
squamous differentiation tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-AGR2 Antibody (A02922-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of AGR2 using anti-AGR2 antibody (A02922-2). AGR2 was detected in an immunocytochemical section of U2OS 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 5 ug/mL rabbit anti-AGR2 Antibody (A02922-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 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.



Immunoprecipitating (IP) AGR2 in A549 whole cell lysate. Western blot analysis of AGR2 using anti-AGR2 antibody (A02922-2); Lane 1: A549 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-AGR2 antibody in A549 whole cell lysate; Lane 3: anti-AGR2 antibody (2ug) + A549 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-AGR2 antigen affinity purified polyclonal antibody (A02922-2) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for AGR2 at approximately 17 kDa. The expected band size for AGR2 is at 20 kDa.



Flow Cytometry analysis of CACO-2 cells using anti-AGR2 antibody (A02922-2). Overlay histogram showing CACO-2 cells stained with A02922-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-AGR2 Antibody (A02922-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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### Anti-Anterior Gradient 2/AGR2 Antibody

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