BOSTER BIOLOGICAL TECHNOLOGY
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Anti-ARG2 Antibody Picoband®

Catalog Number: A02244

About ARG2

ARG2 (arginase, type II) encodes a 355-amino acid polypeptide.Using Northern blotting and RT-PCR,Vockley et al. (1996)found thatARG2is expressed as a 1.5-kb mRNA in a wide variety of tissues, with highest levels of expression in prostate, brain, and kidney.By PCR analysis of somatic cell hybrid panels, fluorescence in situ hybridization, and radiation hybrid analysis,theARG2 gene is mapped to 14q24.1-q24.3. ARG2may be inducible and may be essential in the regulation of nitric oxide synthesis by modulating local arginine concentrations. Gotoh et al. (1996)showed thatARG2mRNA and nitric oxide synthase (NOS) mRNA were coinduced by lipopolysaccharide in a macrophage-like cell line. Arginase II has been implicated in the regulation of the arginine/ornithine concentrations in the cell. The mitochondrial location ofARG2and its coinduction with ornithine aminotransferase and involvement with proline biosynthesis in lactating rat mammary gland had led to the inference thatARG2is involved in biosynthetic functions, as opposed to the metabolic ones of the urea cycle.

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Overview

Product Name	Anti-ARG2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ARG2 Antibody Picoband® catalog # A02244. 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 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P78540

Technical Details

BOSTER
antibody and ELISA experts

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Immunogen	E.coli-derived human ARG2 recombinant protein (Position: M1-I354).
Recommended Detection Systems	Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) 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), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/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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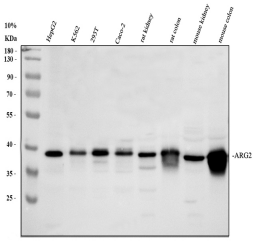
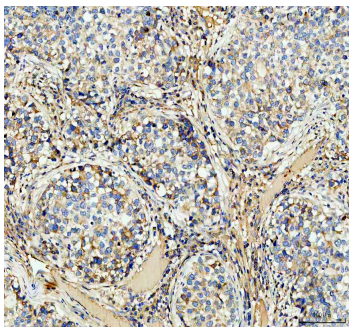
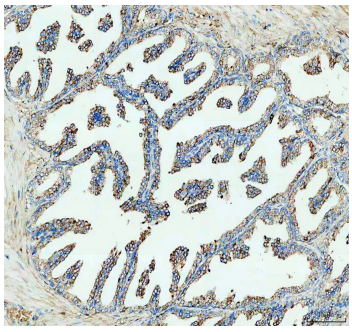
Anti-ARG2 Antibody Picoband® (A02244) Images



Western blot analysis of ARG2 using anti-ARG2 antibody (A02244). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: rat kidney tissue lysates, Lane 6: rat colon tissue lysates, Lane 7: mouse kidney tissue lysates, Lane 8: mouse colon 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-ARG2 antigen affinity purified polyclonal antibody (A02244) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for ARG2 at approximately 39 kDa. The expected band size for ARG2 is at 39 kDa.



IHC analysis of ARG2 using anti-ARG2 antibody (A02244). ARG2 was detected in a paraffin-embedded section of human 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-ARG2 Antibody (A02244) 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 ARG2 using anti-ARG2 antibody (A02244). ARG2 was detected in a paraffin-embedded section of human prostate 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-ARG2 Antibody (A02244) 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 ARG2 using anti-ARG2 antibody (A02244) and

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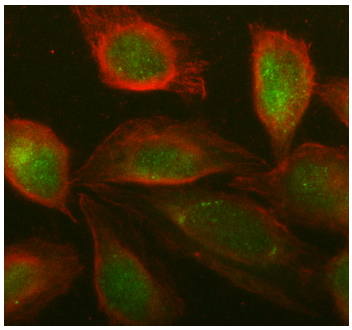
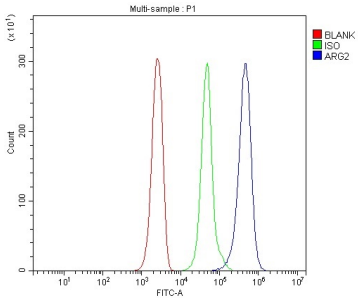


anti-Alpha Tubulin antibody (M03989-3). ARG2 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-ARG2 Antibody (A02244) and mouse anti-Alpha Tubulin antibody (M03989-3) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Fluoro594 Conjugated Goat Anti-Mouse IgG (BA1141) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of Jurkat cells using anti-ARG2 antibody (A02244). Overlay histogram showing Jurkat cells stained with A02244 (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-ARG2 Antibody (A02244, 1 ug/1x106 cells) for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-ARG2 Antibody

For Research Use Only. Not for use in diagnostic procedures.