

## Anti-Arginase-2, mitochondrial Arg2 Antibody Picoband®

Catalog Number: PA1805

### About ARG2

ARG2 (arginase, type II) encodes a 355-amino acid polypeptide. Using Northern blotting and RT-PCR, Vockley et al. (1996) found that ARG2 is 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, the ARG2 gene is mapped to 14q24.1-q24.3. ARG2 may be inducible and may be essential in the regulation of nitric oxide synthesis by modulating local arginine concentrations. Gotoh et al. (1996) showed that ARG2 mRNA 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 of ARG2 and its coinduction with ornithine aminotransferase and involvement with proline biosynthesis in lactating rat mammary gland had led to the inference that ARG2 is involved in biosynthetic functions, as opposed to the metabolic ones of the urea cycle.

### Overview

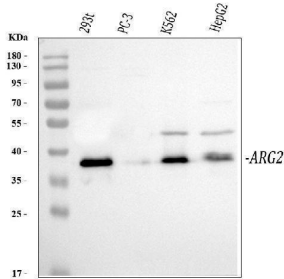
Product Name	Anti-Arginase-2, mitochondrial Arg2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Arginase-2, mitochondrial Arg2 Antibody catalog # PA1805. Tested in IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that 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
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	P78540

### Technical Details

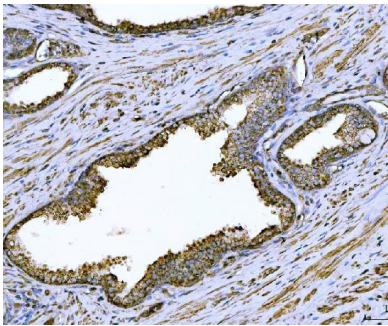
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Arg2, different from the related mouse sequence by three amino acids and from the related rat sequence by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit 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), 2-5ug/ml, Human

## Anti-Arginase-2, mitochondrial Arg2 Antibody Picoband® (PA1805) Images



Western blot analysis of ARG2 using anti-ARG2 antibody (PA1805). 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 293T whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human HepG2 whole cell 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 (Catalog # PA1805) 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 ARG2 at approximately 38 kDa. The expected band size for ARG2 is at 39 kDa.



IHC analysis of ARG2 using anti-ARG2 antibody (PA1805). 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 (PA1805) 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.

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