

Anti-DDAH1 Antibody Picoband®

Catalog Number: PB10000

About DDAH1

DDAH1 is known as dimethylarginine dimethylaminohydrolase 1 which is mapped to chromosome 1p22 by radiation hybrid and FISH analysis. This gene belongs to the dimethylarginine dimethylaminohydrolase (DDAH) gene family. DDAH1 plays a role in nitric oxide generation by regulating cellular concentrations of methylarginines, which in turn inhibit nitric oxide synthase activity. It is widely expressed, especially in liver and kidney.

Overview

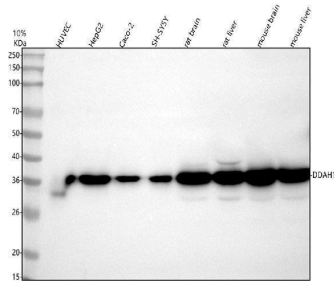
Product Name	Anti-DDAH1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-DDAH1 Antibody Picoband® catalog # PB10000. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *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	O94760

Technical Details

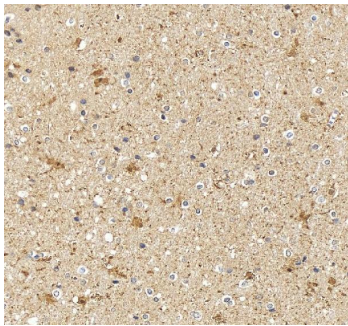
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human DDAH1, different from the related mouse and rat sequences by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated 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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

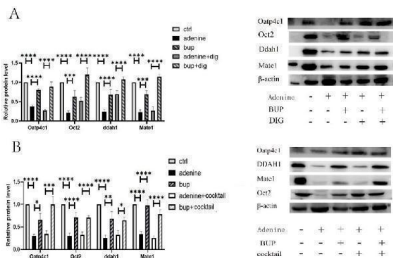
Anti-DDAH1 Antibody Picoband® (PB10000) Images



Western blot analysis of DDAH1 using anti-DDAH1 antibody (PB10000). 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 HUVEC whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human Caco-2 whole cell lysates, Lane 4: human SH-SY5Y whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat liver tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse liver 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-DDAH1 antigen affinity purified polyclonal antibody (Catalog # PB10000) 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 DDAH1 at approximately 37 kDa. The expected band size for DDAH1 is at 31 kDa.

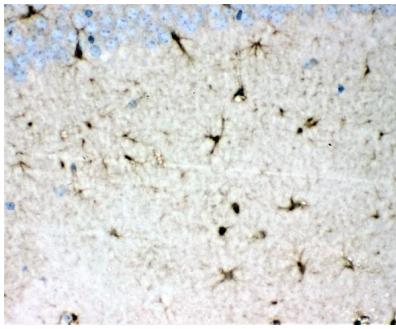


IHC analysis of DDAH1 using anti-DDAH1 antibody (PB10000). DDAH1 was detected in a paraffin-embedded section of human brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-DDAH1 Antibody (PB10000) 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.

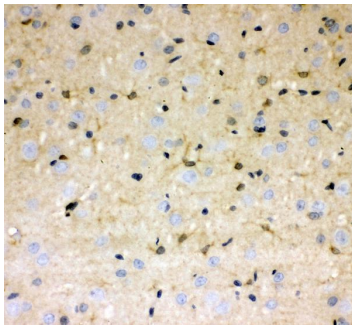


The protein expression of Oatp4c1, Oct2, Ddah1 and Mate1 in rat kidney. (A) Long-term administration of BUP and followed by single-dose administration of DIG; (B) Long-term administration of BUP and followed by single-dose administration of drug cocktail. Cocktail consisted of a single i.v. dose of MET at 5 mg/kg, a single i.v. dose of FUR at 4 mg/kg and a single p.o. dose of RSV at 25 mg/kg. Data are expressed as mean \pm SD (n = 5). * P < 0.05, ** P < 0.01, *** P < 0.001, **** P < 0.0001. Data were analyzed by one-way ANOVA. Index in PubMed under a CC BY license. PMID: 40474975

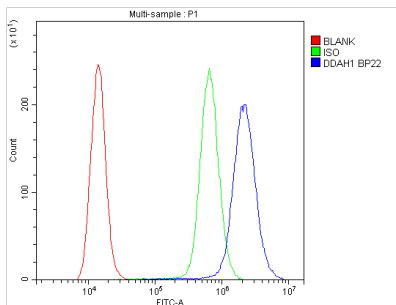
IHC analysis of DDAH1 using anti-DDAH1 antibody (PB10000). DDAH1 was detected in paraffin-embedded section of mouse brain tissues. Heat mediated antigen



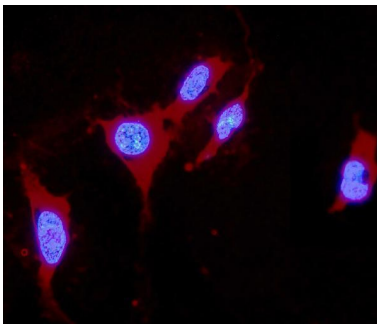
retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-DDAH1 Antibody (PB10000) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary 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 DDAH1 using anti-DDAH1 antibody (PB10000). DDAH1 was detected in paraffin-embedded section of rat brain 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-DDAH1 Antibody (PB10000) 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.

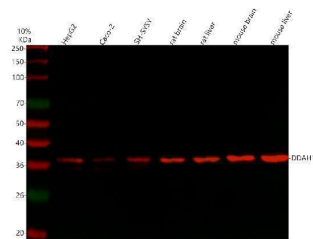


Flow Cytometry analysis of A431 cells using anti-DDAH1 antibody (PB10000). Overlay histogram showing A431 cells stained with PB10000 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DDAH1 Antibody (PB10000, 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.



IF analysis of DDAH1 using anti-DDAH1 antibody (PB10000). DDAH1 was detected in 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 2ug/mL rabbit anti-DDAH1 Antibody (PB10000) overnight at 4°C. DyLight®550 Conjugated Goat Anti-Rabbit IgG (BA1135) 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.

Western blot analysis of DDAH1 using anti-DDAH1 antibody (PB10000). 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 HepG2 whole cell lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: rat liver tissue lysates, Lane 6: mouse brain tissue lysates, Lane 7: mouse liver 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-DDAH1 antigen affinity purified polyclonal antibody (PB10000) 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-DyLight 647 Conjugated secondary antibody at a dilution of 1:2000 for 1.5 hour at RT. A specific band was detected for DDAH1 at approximately 36 kDa. The expected band size for DDAH1 is at 31 kDa.

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Anti-DDAH1 Antibody

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