BOSTER
antibody and ELISA experts

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Anti-Heme Oxygenase 1/HMOX1 Antibody Picoband®

Catalog Number: PB9212

About HMOX1

HMOX1 (heme oxygenase (decycling) 1), also known as HO-1, is a human gene that encodes for the enzyme heme oxygenase 1. It is an essential enzyme in heme catabolism, it cleaves heme to form biliverdin. HMOX1 belongs to the heme oxygenase family. The HMOX1 gene is located on the long (q) arm of chromosome 22 at position 12.3, from base pair 34,101,636 to base pair 34,114,748. HMOX1, an essential enzyme in heme catabolism, cleaves heme to form biliverdin, which is subsequently converted to bilirubin by biliverdin reductase, and carbon monoxide, a putative neurotransmitter. HMOX1 activity is induced by its substrate heme and by various nonheme substances.

Overview

Product Name	Anti-Heme Oxygenase 1/HMOX1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Heme Oxygenase 1/HMOX1 Antibody Picoband® catalog # PB9212. 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 antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *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	P09601

Technical Details

Immunogen	E.coli-derived human HMOX1 recombinant protein (Position: M1-M288). Human HMOX1 shares 82% and 80% amino acid (aa) sequences identity with mouse and rat HMOX1, respectively.
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).

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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), 2-5 ug/ml, Human

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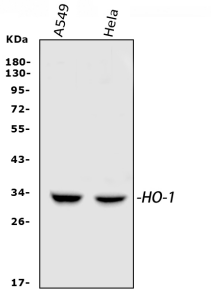
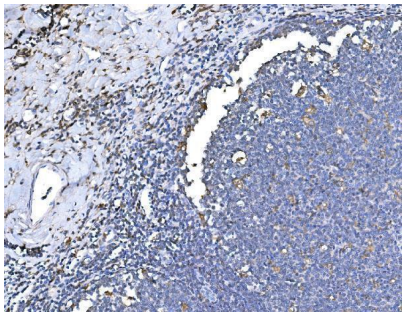
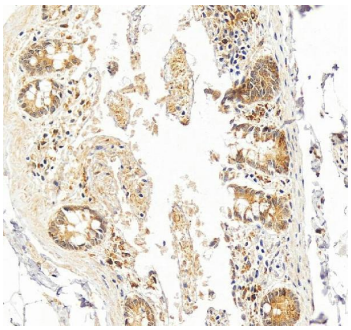
Anti-Heme Oxygenase 1/HMOX1 Antibody Picoband® (PB9212) Images



Western blot analysis of HMOX1 using anti-HMOX1 antibody (PB9212). 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 A549 whole cell lysates, Lane 2: human Hela 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-HMOX1 antigen affinity purified polyclonal antibody (Catalog # PB9212) 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 HMOX1 at approximately 33 kDa. The expected band size for HMOX1 is at 33 kDa.



IHC analysis of HMOX1 using anti-HMOX1 antibody (PB9212). HMOX1 was detected in a paraffin-embedded section of human tonsil 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-HMOX1 Antibody (PB9212) 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 HO-1/HMOX1 using anti-HO-1/HMOX1 antibody (PB9212). HO-1/HMOX1 was detected in a paraffin-embedded section of human small intestine 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-HO-1/HMOX1 Antibody (PB9212) 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.

Western blot analysis of heme oxygenase 1/HMOX1 using anti-heme oxygenase 1/HMOX1 antibody (PB9212). 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. After electrophoresis, proteins

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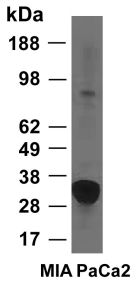

were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 1x PBS +0.2% Tween-20 + 10% nonfat dry milk for 1.5 hour at RT. The membrane was incubated with rabbit anti-heme oxygenase 1/HMOX1 antibody (PB9212) at 0.5 ug/mL overnight at room temperature for 3 hours, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a HRP-conjugated anti rabbit antibodies at 4°C for 12 hours. The signal is developed using an Enhanced chemiluminescence (Thermo Fisher) for one minute. A specific band was detected for heme oxygenase 1/HMOX1 at approximately 32 kDa. The expected band size for heme oxygenase 1/HMOX1 is at 32 kDa.

25 Publications Citing This Product

1. PubMed ID: 10.1039/C6FO00419A, Myricetin ameliorates brain injury and neurological deficits via Nrf2 activation after experimental stroke in middle-aged rats

2. PubMed ID: 10.1016/j.lfs.2020.117292, Nifedipine inhibits oxidative stress and ameliorates osteoarthritis by activating the nuclear factor erythroid-2-related factor 2 pathway

3. PubMed ID: 10.1007/s11596-009-0118-0, Heme oxygenase-1 expression in rats with acute lung rejection and implication

Visit bosterbio.com/anti-hmox1-picoband-trade-antibody-pb9212-boster.html to see all 25 publications.

Anti-Heme Oxygenase 1/HMOX1 Antibody

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