

Datasheet for ABIN3042449

anti-HMOX1 antibody (AA 1-288)

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Overview

Quantity:	100 µg
Target:	HMOX1
Binding Specificity:	AA 1-288
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HMOX1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	Anti-Heme Oxygenase 1/HMOX1 Antibody Picoband®
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Heme Oxygenase 1/HMOX1 Antibody Picoband® (ABIN3042449). 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.
Purification:	Immunogen affinity purified.

Target Details

Target:	HMOX1
Alternative Name:	HMOX1 (HMOX1 Products)
Background:	Synonyms: Heme oxygenase 1,HO-1,1.14.99.3,HMOX1,HO, HO1, Tissue Specificity: Expressed at higher levels in renal cancer tissue than in normal tissue (at protein level). . Background: 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. Sequence Similarities: Belongs to the heme oxygenase family.
Molecular Weight:	33 kDa
Gene ID:	3162
UniProt:	P09601
Pathways:	Transition Metal Ion Homeostasis , Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process , Production of Molecular Mediator of Immune Response , SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/mL, Human 1. He, C. H., Gong, P., Hu, B., Stewart, D., Choi, M. E., Choi, A. M. K., Alam, J. Identification of activating transcription factor 4 (ATF4) as an Nrf2-interacting protein: implication for heme oxygenase-1 gene regulation. J. Biol. Chem. 276: 20858-20865, 2001. 2. Piantadosi CA, Withers CM, Bartz RR, MacGarvey NC, Fu P, Sweeney TE, Welty-Wolf KE, Suliman HB (May 2011). "Heme oxygenase-1 couples activation of mitochondrial biogenesis to anti-inflammatory cytokine expression". J. Biol. Chem.286 (18): 16374-85.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	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.

Publications

Product cited in:	Wei, Kong, Li, Guan, Wang, Miao: "Nicotinamide mononucleotide attenuates brain injury after intracerebral hemorrhage by activating Nrf2/HO-1 signaling pathway." in: Scientific reports , Vol. 7, Issue 1, pp. 717, (2018) (PubMed).
	Zhu, Chen, Chen, Yang, Xie: "Astaxanthin Promotes Nrf2/ARE Signaling to Alleviate Renal Fibronectin and Collagen IV Accumulation in Diabetic Rats." in: Journal of diabetes research , Vol. 2018, pp. 6730315, (2018) (PubMed).
	Wu, Li, Cui, Wu, Hong, Li, Wu, Jie, Wang, Li: "The Natural Flavone Acacetin Confers Cardiomyocyte Protection Against Hypoxia/Reoxygenation Injury via AMPK-Mediated Activation of Nrf2 Signaling Pathway." in: Frontiers in pharmacology , Vol. 9, pp. 497, (2018) (PubMed).
	Li Volti, Avola, Tibullo: "Commentary: The apolipoprotein A-I mimetic peptide, D-4F, restrains neointimal formation through heme oxygenase-1 up-regulation." in: Frontiers in pharmacology , Vol. 8, pp. 708, (2017) (PubMed).
	Wang, Li, Chen, Jiang, Lu, Zhao: "Hydrogen sulfide accelerates wound healing in diabetic rats." in: International journal of clinical and experimental pathology , Vol. 8, Issue 5, pp. 5097-104, (

2016) ([PubMed](#)).

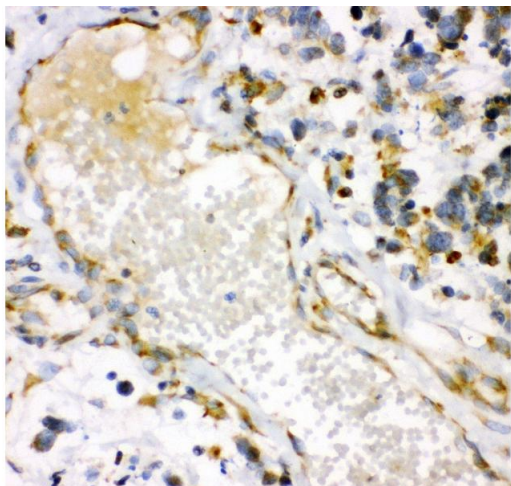
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Images



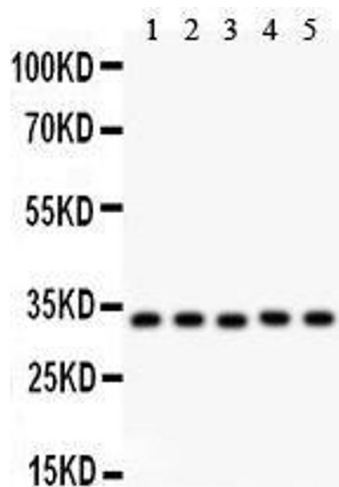
Western Blotting

Image 1. Anti- HMOX1 antibody, Western blotting All lanes: Anti HMOX1 at 0.5ug/ml WB: Recombinant Human HMOX1 Protein 0.5ng Predicted bind size: 37KD Observed bind size: 37KD



Immunohistochemistry

Image 2. Anti- HMOX1 antibody, IHC(P) IHC(P): Human Lung Cancer Tissue



Western Blotting

Image 3. Anti- HMOX1 antibody, Western blotting All lanes: Anti HMOX1 at 0.5ug/ml Lane 1: Human Placenta Tissue Lysate at 50ug Lane 2: Rat Spleen Tissue Lysate at 50ug Lane 3: A549 Whole Cell Lysate at 40ug Lane 4: PANC Whole Cell Lysate at 40ug Lane 5: HELA Whole Cell Lysate at 40ug Predicted bind size: 33KD Observed bind size: 33KD