10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HMOX1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11240c

Product Information

Application	WB, FC, E
Primary Accession	P09601
Other Accession	NP_002124.1
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21577
Calculated MW	32819
Antigen Region	177-204

Additional Information

Gene ID	3162
Other Names	Heme oxygenase 1, HO-1, HMOX1, HO, HO1
Target/Specificity	This HMOX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 177-204 amino acids from the Central region of human HMOX1.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HMOX1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HMOX1
Synonyms	HO, HO1
Function	[Heme oxygenase 1]: Catalyzes the oxidative cleavage of heme at the

	alpha-methene bridge carbon, released as carbon monoxide (CO), to generate biliverdin IXalpha, while releasing the central heme iron chelate as ferrous iron (PubMed:11121422, PubMed:19556236, PubMed:7703255). Affords protection against programmed cell death and this cytoprotective effect relies on its ability to catabolize free heme and prevent it from sensitizing cells to undergo apoptosis (PubMed:20055707).
Cellular Location	Endoplasmic reticulum membrane; Single-pass type IV membrane protein; Cytoplasmic side
Tissue Location	Expressed at higher levels in renal cancer tissue than in normal tissue (at protein level)

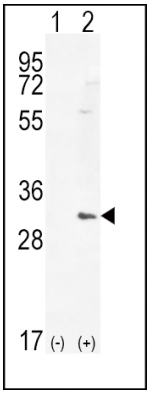
Background

Heme oxygenase, 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. Heme oxygenase activity is induced by its substrate heme and by various nonheme substances. Heme oxygenase occurs as 2 isozymes, an inducible heme oxygenase-1 and a constitutive heme oxygenase-2. HMOX1 and HMOX2 belong to the heme oxygenase family.

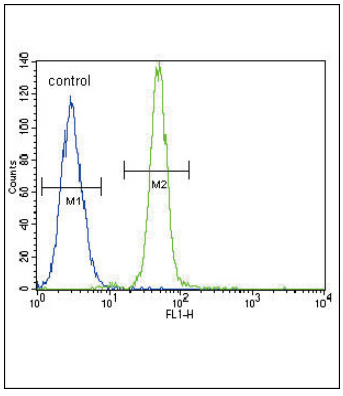
References

Wu, M.M., et al. Toxicol. Appl. Pharmacol. 248(3):226-233(2010)
Bolisetty, S., et al. J. Am. Soc. Nephrol. 21(10):1702-1712(2010)
Bao, W., et al. PLoS ONE 5 (8), E12371 (2010) :
Wu, M.M., et al. J. Biomed. Sci. 17, 70 (2010) :
Wang, X., et al. PLoS ONE 5 (8), E11934 (2010) :

Images



Western blot analysis of HMOX1 (arrow) using rabbit polyclonal HMOX1 Antibody (Center) (Cat. #AP11240c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the HMOX1 gene.



HMOX1 Antibody (Center) (Cat. #AP11240c) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Fasudil Enhances Therapeutic Efficacy of Neural Stem Cells in the Mouse Model of MPTP-Induced Parkinson\'s Disease.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.