Technical Data Sheet

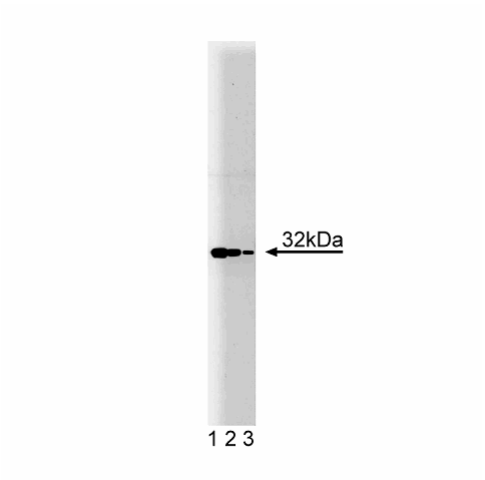
Purified Mouse Anti-Heme Oxygenase 1

Product Information

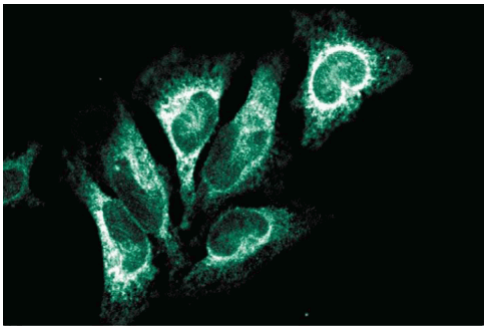
Material Number:	**610712**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	23/Heme Oxygenase 1
Immunogen:	Human Heme Oxygenase 1 (HO-1) aa. 150-286
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	32 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Heme **o**xygenases 1 and 2 (HO-1, HO-2) cleave the heme molecule, resulting in the production of carbon monoxide (CO) and biliverdin. HO-1 is a 288 amino acid monooxygenase with a molecular weight of 32 kDa. While HO-2 is constitutively expressed in tissues, HO-1 is rapidly induced by several stimuli such as lutathione depletion, hemin, heat shock, heavy metals, oxidative stress, oxidized LDL, anoxia, and endotoxic shock. Similar to nitric oxide (NO), CO activates guanylate cyclase and reduces platelet aggregation. Several conditions that increase NO also induce HO-1 expression and activity. This suggests that NO synthases, Cox-2, and HO-1 are part of a general defense mechanism against stress and pathogen invasion.



Western blot analysis of Heme Oxygenase 1 on SW13 lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of Heme Oxygenase 1.*



HeLa

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Foresti R, Clark JE, Green CJ, Motterlini R. Thiol compounds interact with nitric oxide in regulating heme oxygenase-1 induction in endothelial cells. Involvement of superoxide and peroxynitrite anions. *J Biol Chem.* 1997; 272(29):18411-18417.(Biology)

Ishikawa K, Navab M, Leitinger N, Fogelman AM, Lusis AJ. Induction of heme oxygenase-1 inhibits the monocyte transmigration induced by mildly oxidized LDL. *J Clin Invest.* 1997; 100(5):1209-1216.(Biology)

Suzuki M, Ishizaka N, Tsukamoto K. Pressurization facilitates adenovirus-mediated gene transfer into vein graft. *FEBS Lett.* 2000; 470(3):370-374.(Clone-specific: Western blot)

Yoshida T, Biro P, Cohen T, Muller RM, Shibahara S. Human heme oxygenase cDNA and induction of its mRNA by hemin. *Eur J Biochem.* 1988; 171(3):457-461. (Biology)