Revision 4

Store at -20C

#70081

HO-1 Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M	Endogenous	28	Rabbit	#P14901	15368

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

HO-1 Antibody recognizes endogenous levels of total HO-1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of mouse HO-1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Heme oxygenase (HO) is the rate-limiting enzyme in the catabolism of heme that results in the release of carbon monoxide, iron, and biliverdin (1). The products of this enzymatic reaction play important biological roles in antioxidant, anti-inflammatory, and cytoprotective functions (2). HO comprises two isozymes, including the constitutively expressed HO-2 isozyme and the inducible HO-1 isozyme (3). Inducible HO-1 is expressed as an adaptive response to several stimuli, including heme, metals, and hormones (4). The induction of HO-1 has been implicated in numerous disease states, such as transplant rejection, hypertension, atherosclerosis, Alzheimer's disease, endotoxic shock, diabetes, inflammation, and neurological disorders (1,5).

Background References

1. Abraham, N.G. and Kappas, A. (2008) *Pharmacol Rev* 60, 79-127.
2. Otterbein, L.E. et al. (2003) *Trends Immunol* 24, 449-55.
3. Cruse, I. and Maines, M.D. (1988) *J Biol Chem* 263, 3348-53.
4. Maines, M.D. (1988) *FASEB J* 2, 2557-68.
5. Schipper, H.M. et al. (2009) *Curr Alzheimer Res* 6, 424-30.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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