**BACKGROUND**

Heme Oxygenases are microsomal enzymes that cleave heme to produce the antioxidant biliverdin, inorganic iron and carbon monoxide (CO). The activity of Heme Oxygenase 1 (HO-1), also designated HSP 32, is highly inducible in response to numerous stimuli, including heme, heavy metals, hormones and oxidative stress. Heme Oxygenase 2, in contrast, appears to be constitutively expressed in mammalian tissues. Heme Oxygenase 2 is involved in the production of carbon monoxide (CO) in brain, where CO is thought to act as a neurotransmitter. The CO signaling system closely parallels the signaling pathway involving nitric oxide, and regulation of the two systems is closely linked.

Heme Oxygenase 3 is found in the spleen, liver, thymus, prostate, heart, kidney, brain and testis. A poor heme catalyst, Heme Oxygenase 3 has two heme regulatory motifs that may be involved in heme binding.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HMOX1 (human) mapping to 22q12.3.

**SOURCE**

Heme Oxygenase 1 (23) is a mouse monoclonal antibody raised against amino acids 150-286 of Heme Oxygenase 1 of human origin.

**PRODUCT**

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Heme Oxygenase 1 (23) is recommended for detection of Heme Oxygenase 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

Suitable for use as control antibody for Heme Oxygenase 1 siRNA (h): sc-35554, Heme Oxygenase 1 shRNA Plasmid (h): sc-35554-SH and Heme Oxygenase 1 shRNA (h) Lentiviral Particles: sc-35554-V.

Molecular Weight of Heme Oxygenase 1: 32 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SW-13 cell lysate: sc-24778.

**DATA**

Heme Oxygenase 1 (23): sc-136256. Western blot analysis of Heme Oxygenase 1 expression in SW-13 whole cell lysate.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

See Heme Oxygenase 1 (A-3): sc-136960 for Heme Oxygenase 1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.