**BACKGROUND**

Heme Oxygenase 1 Antibody (A-3) is a high quality monoclonal Heme Oxygenase 1 antibody (also designated HO-1 antibody or HMOX1 antibody) suitable for the detection of the Heme Oxygenase 1 protein of human origin. Heme Oxygenase 1 Antibody (A-3) is available as both the non-conjugated anti-Heme Oxygenase 1 antibody form, as well as multiple conjugated forms of anti-Heme Oxygenase 1 antibody, including agarose, HRP, PE, FITC and multiple Alexa Fluor® conjugates. 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 regulation of the two systems is closely linked. Heme Oxygenase 3 is found in the 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.

**SOURCE**

Heme Oxygenase 1 (A-3) is a mouse monoclonal antibody raised against amino acids 184-288 of Heme Oxygenase 1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Heme Oxygenase 1 (A-3) is available conjugated to agarose (sc-136960 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136960 HRP), 200 µg/ml, for WB, (ICH) and ELISA; to either phycocyanin (sc-136960 PE), fluorescein (sc-136960 FITC), Alexa Fluor® 488 (sc-136960 AF488), Alexa Fluor® 568 (sc-136960 AF568), Alexa Fluor® 594 (sc-136960 AF594) or Alexa Fluor® 647 (sc-136960 AF647), 200 µg/ml, for WB, (RGB), IF, (ICH) and FCM; and to either Alexa Fluor® 680 (sc-136960 AF680) or Alexa Fluor® 790 (sc-136960 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

**APPLICATIONS**

Heme Oxygenase 1 (A-3) is recommended for detection of Heme Oxygenase 1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

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.

**SOURCE**


**RESEARCH USE**

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