

**Mouse Anti-Heme Oxygenase 1/Hemlet 1 [A3]: MC0215, MC0215RTU7**

**Intended Use:** For Research Use Only

**Description:** 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.

**Specifications:**

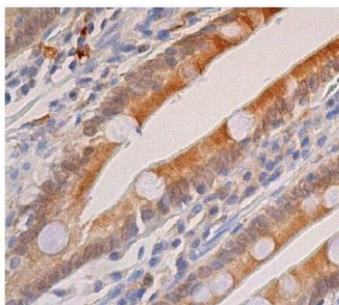
Clone: A3  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: Human Heme Oxygenase 1 aa 184-288  
 Localization: Cytoplasm, perinucleus  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, ICC/IF, IP, WB  
 Package:

Description	Catalog No.	Size
Heme Oxygenase 1/Hemlet 1 Concentrated	MC0215	1 ml
Heme Oxygenase 1/Hemlet 1 Prediluted	MC0215RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Spleen  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human duodenum tissue stained with anti-Hemlet 1 using DAB showing staining of glandular cells

**References:**

1. In Vitro Wound Healing Potential of Photobiomodulation Is Possibly Mediated by Its Stimulatory Effect on AKT Expression in Adipose-Derived Stem Cells. Naresh K Rajendran, et al. Oxid Med Cell Longev. Jan 9; 2021.
2. Quercetin Alleviates the Accumulation of Superoxide in Sodium Iodate-Induced Retinal Autophagy by Regulating Mitochondrial Reactive Oxygen Species Homeostasis through Enhanced Deacetyl-SOD2 via the Nrf2-PGC-1 $\alpha$ -Sirt1 Pathway. Min-Yen Hsu, et al. Antioxidants (Basel). Jul 14;10(7):1125, 2021.

Doc. 100-MC0215

Rev. A