

Recombinant Rat HMOX1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52247

Size: 10ug, 100ug

Protein Name: Heme oxygenase 1 (HO-1) (EC 1.14.14.18) (HSP32) [Cleaved into: Heme oxygenase 1 soluble form]

Synonym: Hmox1

UniProt ID: P06762

UniProt Link: www.uniprot.org/uniprotkb/P06762/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 289 AA

Molecular Weight: 33 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MERPQLDSMSQDLSEALKEATKEVHIRAENSEFMRNFQKGQVSREGFKLVMASLYHIYTALEEEIER
NKQNPVYAPLYFPEELHRRAALEQDMAFWYGPHWQEAIPYTPATQHYVKRLHEVGGTHPELLVAH
AYTRYLGDLSGGQVLKKIAQKAMALPSSGEGLAFFTFPSIDNPTKFKQLYRARMNTLEMTPEVKHRV
TEEAKTAFLLNIELFEELQALLTEEHKDQSPSQTEFLRQRPASLVQDTTSAETPRGKSQISTSSSQTP
LLRWVLTLSFLLATVAVGIYAM

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Heme oxygenase 1 (HO-1) (EC 1.14.14.18) (HSP32) [Cleaved into: Heme oxygenase 1 soluble form] produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: [Heme oxygenase 1]: Catalyzes the oxidative cleavage of heme at the alpha-methene bridge carbon, released as carbon monoxide (CO), to generate biliverdin IXalpha, while releasing the central heme iron chelate as ferrous iron (PubMed:1575508, PubMed:1935972, PubMed:3865203). Affords protection against programmed cell death and this cytoprotective effect relies on its ability to catabolize free heme and prevent it from sensitizing cells to undergo apoptosis (By similarity).; [Heme oxygenase 1 soluble form]: Catalyzes the oxidative cleavage of heme at the alpha-methene bridge carbon, released as carbon monoxide (CO), to generate biliverdin IXalpha, while releasing the central heme iron chelate as ferrous iron.

Subcellular Localization: Endoplasmic reticulum membrane ; Single-pass type IV membrane protein ; Cytoplasmic side .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.