Hypoxia Up-Regulated Protein 1 (HYOU1) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Hypoxia up-regulated protein 1 (Hyou1), Recombinant Protein
Full Product Name	Recombinant Rat Hypoxia up-regulated protein 1 (Hyou1) , partial
Product Gene Name	Hyou1 recombinant protein
Product Synonym Gene Name	Hyou1
Sequence	MVEEIGVELA VLDLPDLPED ELAHSVQKLE DLTLRDLEKQ EREKAANSLE AFIFETQDKL YQPEYQEVST EEQREEISGK LSATSTWLED EGFGATTVML KDKLAELRKL CQGLFFRVEE RRKWPERLSA LDNLLNHSSI FLKGARLIPE MDQIFTDVEM TTLEKVINDT WTWKNATLAE QAKLPATEKP VLLSKDIEAK MMALDREVQY LLNKAKFTKP RPRPKDKNGT RTEPPLNASA GDQEEKVIPP TGQTEEAKAI LEPDKEGLGT EAADSEPLEL GGPGAESEQA EQTAGQKRPL
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	111,289 Da
Sequence Positions	695-994. Partial.
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q63617
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Hyou1 recombinant protein	This protein belongs to the heat shock protein 70 family. This gene uses alternative transcription start sites. A cis-acting segment found in the 5 UTR is involved in stress-dependent induction, resulting in the accumulation of this protein in the endoplasmic reticulum (ER) under hypoxic conditions. This protein is thought to play an important role in protein folding and secretion in the ER. Since suppression of the protein is associated with accelerated apoptosis, it is also suggested to have an important cytoprotective role in hypoxia-induced cellular perturbation. This protein has been shown to be up-regulated in tumors, especially in breast tumors, and thus it is associated with tumor invasiveness. This gene also has an alternative translation initiation site, resulting in a protein that lacks the N-terminal signal peptide. This signal peptide-lacking protein, which is only 3 amino acids shorter than the mature protein in the ER, is thought to have a housekeeping function in the cytosol. In rat, this protein localizes to both the ER by a carboxy-terminal peptide sequence and to mitochondria by an amino-terminal targeting signal.
Other Notes	Small volumes of Hyou1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Hyou1 purchase	MBS1355077 is a recombinant protein targeting Hyou1. Also known as Recombinant Rat Hypoxia up-regulated protein 1 (Hyou1) , partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Hyou1. It may not necessarily be applicable to this product.

NCBI GI #	77404380
NCBI GeneID	192235
NCBI Accession #	NP_620222.2
UniProt Primary Accession #	Q63617
UniProt Related Accession #	Q63617
GenBank Nucleotide #	NM_138867.2
NCBI Official Full Name	hypoxia up-regulated protein 1
NCBI Official Synonym Full Names	hypoxia up-regulated 1
NCBI Official Symbol	Hyou1
NCBI Official Synonym Symbols	Cab140; Orp150
UniProt Protein Name	Hypoxia up-regulated protein 1
UniProt Synonym Protein Names	150 kDa oxygen-regulated protein; ORP-150
Protein Family	Hypoxia up-regulated protein
UniProt Gene Name	Hyou1
UniProt Synonym Gene Names	Orp150; ORP-150
NCBI Protein Information	hypoxia up-regulated protein 1
NCBI Summary for Hyou1	a stress protein induced by hypoxia [RGD, Feb 2006]
UniProt Comments for Hyou1	Has a pivotal role in cytoprotective cellular mechanisms triggered by oxygen deprivation. May play a role as a molecular chaperone and participate in protein folding ().
Research Articles on Hyou1	**1.** Data reveal that Grp170 participates in preparing mutant proinsulin for degradation while enabling wild-type proinsulin escape from the endoplasmic reticulum.
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