Bifunctional Purine Biosynthesis Protein PURH (ATIC) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Bifunctional purine biosynthesis protein PURH (Atic), Recombinant Protein
Full Product Name	Recombinant Rat Bifunctional purine biosynthesis protein PURH (Atic)
Product Gene Name	Atic recombinant protein
Sequence	MASSQLALFS VSDKTGLVEF ARNLASLGLS LVASGGTAKA IRDAGLAVRD VSELTGFPEM LGGRVKTLHP AVHAGILARN IPEDAADMAR LDFNLIRVVV CNLYPFVKTV ASPDVTVEAA VEQIDIGGVT LLRAAAKNHA RVTVVCEPED YGAVAAEMQG SGNKDTSLET RRHLALKAFT HTAQYDEAIS DYFRRQYSKG ISQMPLRYGM NPHQTPAQLY TLKPKLPITV LNGAPGFINL CDALNAWQLV TELRGAVDIP AAASFKHVSP AGAAVGVPLS EDEARVCMVY DLYPTLTPLA IAYARARGAD RMSSFGDFVA LSDVCDVPTA KIISREVSDG IVAPGYEEEA LKILSKKKNG SYCVLQMDQS YKPDENEVRT LFGLRLSQKR NNGVVDKSLF SNIVTKNKDL PESALRDLIV ATIAVKYTQS NSVCYAKDGQ VIGIGAGQQS RIHCTRLAGD KANSWWLRHH PRVLSMKFKA GVKRAEVSNA IDQYVTGTIG EGEDLVKWKA LFEEVPELLT EAEKKEWVDK LSGVSVSSDA FFPFRDNVDR AKRSGVAYIV APSGSTADKV VIEACDELGI VLAHTDLRLF HH
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	64,208 Da
Sequence Positions	1-592, full length protein
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 O35567
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Atic recombinant protein	This gene encodes a bifunctional protein that catalyzes the last two steps of the de novo purine biosynthetic pathway. The N-terminal domain has phosphoribosylaminoimidazolecarboxamide formyltransferase activity, and the C-terminal domain has IMP cyclohydrolase activity. A mutation in this gene results in AICA-ribosiduria.
Other Notes	Small volumes of Atic 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 Atic purchase	MBS1233297 is a recombinant protein targeting Atic. Also known as Recombinant Rat Bifunctional purine biosynthesis protein PURH (Atic). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

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

NCBI GI #	48675845

NCBI GeneID	81643
NCBI Accession #	NP_112276.2
UniProt Primary Accession #	O35567
UniProt Secondary Accession #	Q6IN16
UniProt Related Accession #	O35567
GenBank Nucleotide #	NM_031014.2
NCBI Official Full Name	bifunctional purine biosynthesis protein PURH
NCBI Official Synonym Full Names	5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase
NCBI Official Symbol	Atic
UniProt Protein Name	Bifunctional purine biosynthesis protein PURH
UniProt Synonym Protein Names	Phosphoribosylaminoimidazolecarboxamide formyltransferase (EC:2.1.2.3)Alternative name(s):5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase; AICAR transformylase
UniProt Gene Name	Atic
UniProt Synonym Gene Names	Purh
NCBI Protein Information	bifunctional purine biosynthesis protein PURH
NCBI Summary for Atic	catalyzes the final two steps of de novo purine biosynthesis [RGD, Feb 2006]
UniProt Comments for Atic	Bifunctional enzyme that catalyzes 2 steps in purine biosynthesis.
Research Articles on Atic	**1.** Data identified ATIC as a physical partner of internalized insulin receptor (IR) in purified Golgi-endosomes (G/E) fractions of rat's liver. They show that ATIC later accumulates in G/E . SiRNA-mediated partial knockdown of ATIC decreased tyrosine phosphorylation of IR and regulated IR endocytosis in HEK293 cells. Treatment with ATIC substrate AICAR, which is an allosteric activator of AMPK, increased IR endocytosis.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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