6-Phosphofructo-2-Kinase/Fructose-2,6-Bisphosphatase 1 (PFKFB1) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1 (PFKFB1), Recombinant Protein
Full Product Name	Recombinant Human 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1 (PFKFB1)
Product Gene Name	PFKFB1 recombinant protein
Sequence	SPEMGELTQT RLQKIWIPHS SGSSRLQRRR GSSIPQFTNS PTMVIMVGLP ARGKTYISTK LTRYLNWIGT PTKVFNLGQY RREAVSYKNY EFFLPDNMEA LQIRKQCALA ALKDVHNYLS HEEGHVAVFD ATNTTRERRS LILQFAKEHG YKVFFIESIC NDPGIIAENI RQVKLGSPDY IDCDREKVLE DFLKRIECYE VNYQPLDEEL DSHLSYIKIF DVGTRYMVNR VQDHIQSRTV YYLMNIHVTP RSIYLCRHGE SELNIRGRIG GDSGLSVRGK QYAYALANFI QSQGISSLKV WTSHMKRTIQ TAEALGVPYE QWKALNEIDA GVCEEMTYEE IQEHYPEEFA LRDQDKYRYR YPKGESYEDL VQRLEPVIME LERQENVLVI CHQAVMRCLL AYFLDKSSDE LPYLKCPLHT VLKLTPVAYG CKVESIYLNV EAVNTHREKP ENVDITREPE EALDTVPAHY
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	47,426 Da
Sequence Positions	2-471, 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.
OMIM	311790
3D Structure	ModBase 3D Structure for P16118
Species	Human
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for PFKFB1 recombinant protein	This gene encodes a member of the family of bifunctional 6-phosphofructo-2-kinase:fructose-2,6-biphosphatase enzymes. The enzyme forms a homodimer that catalyzes both the synthesis and degradation of fructose-2,6-biphosphate using independent catalytic domains. Fructose-2,6-biphosphate is an activator of the glycolysis pathway and an inhibitor of the gluconeogenesis pathway. Consequently, regulating fructose-2,6-biphosphate levels through the activity of this enzyme is thought to regulate glucose homeostasis.
Other Notes	Small volumes of PFKFB1 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 PFKFB1 purchase	MBS957423 is a recombinant protein targeting PFKFB1. Also known as Recombinant Human 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1 (PFKFB1). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PFKFB1. It may not necessarily be applicable to this product.

NCBI GI #	424036667
NCBI GeneID	5207
NCBI Accession #	NP_001258733.1
UniProt Primary Accession #	P16118
UniProt Secondary Accession #	Q5JXS5; Q99951; B2RA88; B4DUN5
UniProt Related Accession #	P16118
GenBank Nucleotide #	NM_001271804.1
NCBI Official Full Name	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1 isoform 2
NCBI Official Synonym Full Names	6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1
NCBI Official Symbol	PFKFB1
NCBI Official Synonym Symbols	F6PK; HL2K; PFRX
UniProt Protein Name	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1
UniProt Synonym Protein Names	6PF-2-K/Fru-2,6-P2ase liver isozymeIncluding the following 2 domains:6-phosphofructo-2-kinase (EC:2.7.1.105)Fructose-2,6-bisphosphatase (EC:3.1.3.46)
Protein Family	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase
UniProt Gene Name	PFKFB1
UniProt Synonym Gene Names	F6PK; PFRX; 6PF-2-K/Fru-2,6-P2ase 1; PFK/FBPase 1
NCBI Protein Information	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 1
NCBI Summary for PFKFB1	This gene encodes a member of the family of bifunctional 6-phosphofructo-2-kinase:fructose-2,6-biphosphatase enzymes. The enzyme forms a homodimer that catalyzes both the synthesis and degradation of fructose-2,6-biphosphate using independent catalytic domains. Fructose-2,6-biphosphate is an activator of the glycolysis pathway and an inhibitor of the gluconeogenesis pathway. Consequently, regulating fructose-2,6-biphosphate levels through the activity of this enzyme is thought to regulate glucose homeostasis. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Nov 2012]
UniProt Comments for PFKFB1	Synthesis and degradation of fructose 2,6-bisphosphate.
Research Articles on PFKFB1	**1.** Insulin resistance in obese boys leads to up-regulation of INSIG2 gene expression as well as to down-regulation of PFKFB1, PFKFB3, and HK2 genes in the blood cells as compared to obese patients with normal insulin sensitivity.
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