Human PFK1 / PFKM Protein (His & GST Tag)

Catalog Number: **14133-H20B**

General Information

Gene Name Synonym:

ATP-PFK; GSD7; PFK-1; PFK1; PFKA; PFKX; PPP1R122

Protein Construction:

A DNA sequence encoding the human PFKM (P08237-1) (Thr2-Val780) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human PFKM /GST chimera consists of 1016 amino acids and has a calculated molecular mass of 112.9 kDa. The recombinant protein migrates as an approximately 113 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, pH 8.5, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

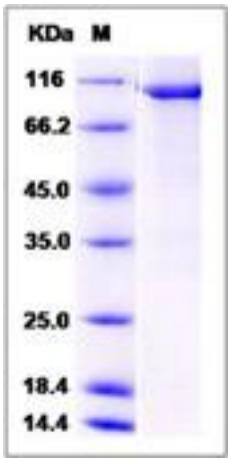
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

PFK1, also known as PFKM, is a regulatory glycolytic enzyme. PFK1 converts fructose 6-phosphate and ATP into fructose 1,6-bisphosphate (through PFK-1), fructose 2,6-bisphosphate (through PFK-2) and ADP. It is a muscle-type isozyme. There are three phosphofructokinase isozymes in humans: muscle, liver and platelet. These isozymes function as subunits of the mammalian tetramer phosphofructokinase, which catalyzes the phosphorylation of fructose-6-phosphate to fructose-1,6-bisphosphate. Mutations in PFK1 gene have been related with glycogen storage disease type VII, also identified as Tarui disease.

References

1.Yamasaki T., *et al.*,(1991), Structure of the entire human muscle phosphofructokinase-encoding gene: a two-promoter system. Gene 104:277-282. 2.Sharma P.M., *et al.*, (1989), Cloning and expression of a human muscle phosphofructokinase cDNA.Gene 77:177-183. 3.Nakajima H., *et al.*,(1987), Cloning of human muscle phosphofructokinase cDNA.FEBS Lett. 223:113-116.