PFKFB3 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P74636
Synonyms:	IPFK2; PFK2; iPFK-2; PFK/FBPase 3
Species:	Human
Source:	Sf9 insect cells
Accession:	Q16875 (M1-H520)
Gene ID:	5209
Molecular Weight:	Approximately 75 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.0, 10% glycerol, 0.3 mM DTT.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	PFKFB3 protein is a key player in cellular energy metabolism as it serves a dual function by catalyzing both the synthesis and degradation of fructose 2,6-bisphosphate (F-2,6-BP). F-2,6-BP is a crucial allosteric regulator of glycolysis, exerting control over the rate of glucose utilization for energy production. PFKFB3 acts as a kinase to generate F-2,6-BP, promoting the activation of phosphofructokinase-1 (PFK-1), a rate-limiting enzyme in glycolysis. This results in enhanced glycolytic flux and increased energy production. Conversely, PFKFB3 can also act as a phosphatase to degrade F-2,6-BP, exerting inhibitory effects on PFK-1 and subsequently slowing down glycolysis. The tight regulation of PFKFB3 activity is crucial for maintaining cellular energy homeostasis and has implications in various physiological and pathological processes, including cancer and metabolic disorders. Understanding the intricate regulatory mechanisms governing PFKFB3 can provide insights into therapeutic strategies targeting glycolytic metabolism.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA