Recombinant Human PFK2/PFKFB3 Protein (His & GST Tag)

Catalog Number:PKSH030329

Note: Centrifuge before opening to ensure complete recovery of vial contents.

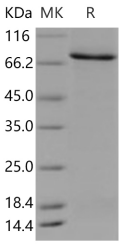
Description

Synonyms	IPFK2;PFK2
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-His 520
Accession	Q16875-1
Calculated Molecular Weight	87.4 kDa
Observed molecular weight	75 kDa
Tag	N-His-GST

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 7.0, 10% glycerol, 0.3mM DTT
Reconstitution	Not Applicable

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Fructose-2,6-biphosphatase 3, also known as 6-phosphofructo-2-kinase or PFK2 or PFKFB3, is a potent activator of phosphofructokinase, which is a rate-limiting enzyme of glycolysis. Highly phosphorylated PFKFB3 protein was found in human tumor cells, vascular endothelial cells, and smooth muscle cells. Fructose 2,6-bisphosphate (Fru-2,6-BP) is an allosteric activator of 6-phosphofructo-1-kinase (PFK-1), a rate-limiting enzyme and essential control point in glycolysis. The concentration of PFK2 depends on the activity of the bifunctional enzyme, 6-phosphofructo-2-kinase / fructose-2,6-bisphosphatase (PFK-2 / FBPase). PFK2 controls the glycolytic flux via the allosteric activator fructose 2,6-bisphosphate. Because of its proto-oncogenic character, the PFK-2/FBPase-2 of the PFKFB3 gene is assumed to play a critical role in tumorigenesis. The hypoxia-inducible form of 6-phosphofructo-2-kinase / fructose-2,6-bisphosphatase (PFKFB3) plays a crucial role in the progression of cancerous cells by enabling their glycolytic pathways even under severe hypoxic conditions.

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