



Recombinant Protein Technical Manual
Recombinant Human PFK2/PFKFB3 Protein (His & GST Tag)
RPES0796

Product Data:

Product SKU: RPES0796

Size: 50µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: Q16875

Protein Information:

Molecular Mass: 87.4 kDa

AP Molecular Mass: 75 kDa

Tag: N-His & GST

Bio-activity:

Purity: > 85 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg 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 20mM Tris, 500mM NaCl, pH 7.0, 10% glycerol, 0.3mM DTT

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: IPFK2;PFK2

Immunogen Information:

Sequence: Met 1-His 520

Background:

Fructose-2,6-bisphosphatase 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-kinase (PFK), 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.