PKM2 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	PKM2, Recombinant Protein
Full Product Name	Recombinant Human PKM2 protein (His tag)
Product Gene Name	PKM2 recombinant protein
Product Synonym Names	CTHBP; HEL-S-30; OIP3; PK3; PKM2; TCB; THBP1
Sequence	Ser2-Pro53 1
Host	E coli
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Purity/Purification	>95% as determined by reducing SDS-PAGE.
Preparation and Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months.
Molecular Weight	531
Chromosome Location	Chromosome: 15; NC_000015.9 (72491370..72523901, complement). Location: 15q22
OMIM	179050
3D Structure	ModBase 3D Structure for P14618
Species	Human
Tag	N-His
Endotoxin	<10EU/mg of the protein as determined by the LAL method.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5mg/mL. Concentration is measured by UV-Vis.
Product Categories/Family for PKM2 recombinant protein	Proteins; Recombinant Proteins; Others; Cancer; Epigenetics and Nuclear Signaling; Metabolism Signal Transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for PKM2 recombinant protein	Pyruvate kinase isozymes M2 also known as pyruvate kinase muscle isozyme 2 (PKM2), pyruvate kinase type K, cytosolic thyroid hormone-binding protein (CTHBP), thyroid hormone-binding protein 1 (THBP1), or opa-interacting protein 3 (OIP3), is an isoenzyme of the glycolytic enzyme pyruvate kinase. Pyruvate kinase isozymes M2/PKM2 is a protein involved in glycolysis. The encoded protein is a pyruvate kinase that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate to ADP, generating ATP and pyruvate. PKM2 has been shown to interact with thyroid hormone and may mediate cellular metabolic effects induced by thyroid hormones. PKM2 has been found to bind Opa protein, a bacterial outer membrane protein involved in gonococcal adherence to and invasion of human cells, suggesting a role of this protein in bacterial pathogenesis. Several alternatively spliced transcript variants encoding a few distinct isoforms have been reported. PKM2 functions as a glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP. PKM2 may stimulates POU5F1-mediated transcriptional activation. This protein Plays a general role in caspase independent cell death of tumor cells. The ratio betwween the highly active tetrameric form and nearly inactive dimeric form determines whether glucose carbons are channeled to biosynthetic processes or used for glycolytic ATP production. The transition between the 2 forms of PKM2 contributes to the control of glycolysis and is important for tumor cell proliferation and survival.

Other Notes	Small volumes of PKM2 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 PKM2 purchase	MBS2580524 is a recombinant protein targeting PKM2. Also known as Recombinant Human PKM2 protein (His tag). Host: E coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PKM2. It may not necessarily be applicable to this product.

NCBI GI #	332164775
NCBI GeneID	5315
NCBI Accession #	NP_001193725.1
UniProt Primary Accession #	P14618
UniProt Secondary Accession #	P14786; Q53GK4; Q96E76; Q9BWB5; Q9UCV6; Q9UPF2; A6NFK3; B2R5N8; B3KRY0; B4DFX8; B4DUU6
UniProt Related Accession #	P14618
GenBank Nucleotide #	NM_001206796.1
NCBI Official Full Name	pyruvate kinase PKM isoform c
NCBI Official Synonym Full Names	pyruvate kinase, muscle
NCBI Official Symbol	PKM
NCBI Official Synonym Symbols	PK3; TCB; OIP3; PKM2; CTHBP; THBP1
UniProt Protein Name	Pyruvate kinase PKM
UniProt Synonym Protein Names	Cytosolic thyroid hormone-binding protein; CTHBP; Opa-interacting protein 3; OIP-3; Pyruvate kinase 2/3; Pyruvate kinase muscle isozyme; Thyroid hormone-binding protein 1; THBP1; Tumor M2-PK; p58
UniProt Gene Name	PKM
UniProt Synonym Gene Names	OIP3; PK2; PK3; PKM2; CTHBP; OIP-3; THBP1
UniProt Entry Name	KPYM_HUMAN
NCBI Protein Information	pyruvate kinase PKM; p58; OIP-3; tumor M2-PK; PK, muscle type; pyruvate kinase 2/3; OPA-interacting protein 3; pyruvate kinase isozymes M1/M2; pyruvate kinase muscle isozyme; thyroid hormone-binding protein 1; cytosolic thyroid hormone-binding protein; th
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