

Recombinant Human PKM2, His-tagged

Cat. No. PKM2-1515H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PKM2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography (1-531 aa).
Species	Human
Source	Human
Description	PKM2 is an isoenzyme of the glycolytic enzyme pyruvate kinase. This protein catalyzes the production of pyruvate and ATP from phosphoenolpyruvate. PKM2 interacting with Opa proteins, a bacterial outer membrane protein involved in gonococcal adherence to and invasion of human cells, is required for bacterial pathogenesis.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol
Molecular Weight	60.1 kDa (551aa)
Purity	> 95% by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Biological activity	Specific activity: > 5.0 unit/mg. One unit will form 1.0 umol of phospho(enol)pyruvate to pyruvate per minute at pH 7.5 at 37°C.
Activity Assay	1. Prepare a 1.45 ml reaction mixture into a suitable container. - Reaction mixture:

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100mM Tris-HCl pH 7.5, 7.6 mM ADP, 15 mM MgCl₂, 74 mM KCl, 0.2 mM Beta-NADH, 5.2 mM PEP, 0.025 units Recombinant LDHA protein. 2. Add 50ul of recombinant PKM2 protein solution with various concentrations (0.5ug, 1ug) 3. Read the decrease in A340nm in kinetic mode for 10 minutes.

Sequences of amino acids

MGSSHHHHHH SSGLVPRGSH MSKPHSEAGT AFIQTQQLHA AMADTFLEHM
CRLDIDSPPI TARNTGIICT IGPASRSVET LKEMIKSGMN VARLNFSHGT
HEYHAETIKN VRTATESFAS DPILYRPVAV ALDTKGPEIR TGLIKGSGTA
EVELKKGATL KITLDNAYME KCDENILWLD YKNICKVVEV GSKIYVDDGL
ISLQVKQKGA DFLVTEVENG GSLGSKKGVN LPGAAVDLPA VSEKDIQDLK
FGVEQDVDMV FASFIRKASD VHEVRKVLGE KGKNIKIISK IENHEGVRRF
DEILEASDGI MVARGDLGIE IPAELVFLAQ KMMIGRCNRA GKPVICATQM
LESMIKKPRP TRAEGSDVAN AVLDGADCIM LSGETAKGDY PLEAVRMQHL
IAREAEAAIY HLQLFEELRR LAPITSDPTE ATAVGAVEAS FKCCSGAIIV
LTKSGRSAHQ VARYRPRAPI IAVTRNPQTA RQAHLYRGIF PVLCKDPVQE
AWAEDVDLRV NFAMNVGKAR GFFKKGDVVI VLTGWRPGSG FTNTMRVVPV P

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Biosynthesis of alkaloids derived from histidine and purine; Biosynthesis of alkaloids derived from ornithine, lysine and nicotinic; Biosynthesis of alkaloids derived from shikimate pathway; Biosynthesis of alkaloids derived from terpenoid and polyketide

GENE INFORMATION

Gene Name PKM2 pyruvate kinase, muscle [Homo sapiens]

Official Symbol PKM2

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Synonyms	PKM2; pyruvate kinase, muscle; PK3; PKM; TCB; OIP3; CTHBP; THBP1; MGC3932; Pyruvate kinase isozymes M1/M2; EC 2.7.1.40; Pyruvate kinase muscle isozyme; Pyruvate kinase 2/3; Cytosolic thyroid hormone-binding protein; Cytosolic thyroid hormone-binding protein; OPA-interacting protein 3; PK, muscle type; pyruvate kinase, muscle; thyroid hormone-binding protein, cytosolic
Gene ID	5315
mRNA Refseq	NM_002654
Protein Refseq	NP_002645
MIM	179050
UniProt ID	P14618
Chromosome Location	15q22
Function	ATP binding; magnesium ion binding; nucleotide binding; potassium ion binding; protein binding; pyruvate kinase activity; transferase activity
PDB rendering based on 1a49.	