

Active Recombinant Human PKM2 Protein, N-His tagged

Cat. No. PKM2-34H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PKM2 Protein with N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Pyruvate kinase catalyzes the conversion of phosphoenolpyruvate (PEP) to pyruvate, the last reaction of glycolysis. The M2 isozyme of pyruvate kinase, or PKM2 is the only isozyme expressed in cancer cells, and have been used clinically as tumor maker for detection of early cancer and monitor progress of cancer treatment.
Bio-activity	PKM2 activity was measured by an enzyme coupled assay utilizing lactic-acid dehydrogenase (LDH). PKM2 activity is reflected in the conversion of nicotinamide adenine dinucleotide acid (NADH) to nicotinamide adenine dinucleotide (NAD ⁺). The amount of NADH is measured by colorimetric absorbance at 340 nm. The concentration of NADH can be calculated according to its extinction coefficient (6220/ M-1cm-1 at 340 nm). The purified PKM2 was activated by fructose 1,6-bisphosphate (FBP). The presence of FBP lowered the Km for substrate PEP by 20 fold.
AA Sequence	MGSSHHHHHSSGLVPRGSHMSKPHSEAGTVRTATESFASDPILYRPVAVALDTKG PEIRGSLGSKKGVNLPGAAVDLPVSEKDIQDLKKMMIGRCNRAGKPVICATQMLES MIKKPRPFKCCSGAIVLTKSGRSAHQVARYRPRAPIAFIQTQQLHAAMADTFLEHM CRLDIDSPITARNTGIICTIGPASRSVETLKEMIKSGMNVARLNFSHGTHEYHAETIK NTGLIKGSGTAEVELKKGATLKITLDNAYMEKCDENILWLDYKNICKVVEVGSKIYVD

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DGLISLQVKQKGADFLVTEVENGFVGEQDQDVMVFASFIRKASDVHEVRKVLGEKGK
 NIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIEIPAEEKVFLAQTRAEGSDVANAVL
 DGADCIMLSGETAKGDYPLEAVRMQHIAAREAAIYHLQLFEELRRLAPITSDPTEA
 TAVGAVEASIAVTRNPQTARQAHLYRGIFPVLCCKDPVQEAWAEDVDLRVNFAMNVG
 KARGFFKKGDVVIVLTGWRPGSGFTNTMRVVPV

Purity > 98% by SDS-PAGE

Usage Useful for studying enzyme kinetics, screening for PKM2 modulators including activators and inhibitors, and selectivity profiling. Protein binding assay, antigen, ELSA, Western blot, crystallization, co-crystallization and crystal structure determination study.

Storage Upon delivery aliquot and store at -80 centigrade. Avoid multiple freeze-thaw cycles. The protein is stable for 12 months at -80 centigrade, for 2-4 weeks at 4 centigrade.

Concentration 0.5 mg/mL

Storage Buffer PKM2 with 2 mM DTT, 20% glycerol, 0.02% NaN₃, 150 mM NaCl, 0.1 mM EDTA, 50 mM Tris-HCl pH7.5.

GENE INFORMATION

Gene Name PKM2 pyruvate kinase, muscle [Homo sapiens (human)]

Official Symbol PKM2

Synonyms PKM2; pyruvate kinase, muscle; pyruvate kinase isozymes M1/M2; OIP3; PK3; THBP1; p58; OIP-3; tumor M2-PK; PK, muscle type; pyruvate kinase 2/3; OPA-interacting protein 3; pyruvate kinase muscle isozyme; thyroid hormone-binding protein 1; cytosolic thyroid hormone-binding protein; thyroid hormone-binding protein,

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cytosolic; PKM; TCB; CTHBP; MGC3932;

Gene ID 5315**mRNA Refseq** NM_001206797**Protein Refseq** NP_001193726**MIM** 179050**UniProt ID** P14618 Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA