Active Pyruvate kinase isozymes M2 (PKM2)

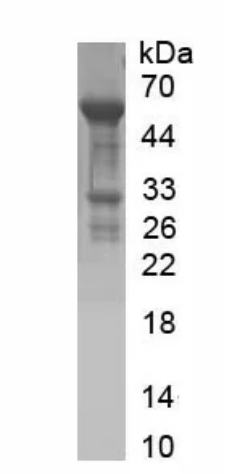
Catalog#:PEH12434

概述（Summary）

别称（Alternative Names）	M2PK; PKM; M2-PK; PKM1; CTHBP; OIP3; PK3; PKM; TCB; THBP1; Pyruvate kinase muscle isozyme; Thyroid hormone-binding protein 1; Cytosolic thyroid hormone-binding protein; Pyruvate Kinase, Muscle
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Arg294-Phe470】
Accession #	P14618
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	49.3 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP. The ratio between 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 contributes to the control of glycolysis and is important for tumor cell proliferation and survival. In addition to its role in glycolysis, also regulates transcription. Stimulates POU5F1-

mediated transcriptional activation. Promotes in a STAT1-dependent manner, the expression of the immune checkpoint protein CD274 in ARNTL/BMAL1-deficient macrophages. Also acts as a translation regulator for a subset of mRNAs, independently of its pyruvate kinase activity: associates with subpools of endoplasmic reticulum-associated ribosomes, binds directly to the mRNAs translated at the endoplasmic reticulum and promotes translation of these endoplasmic reticulum-destined mRNAs. Plays a general role in caspase independent cell death of tumor cells.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

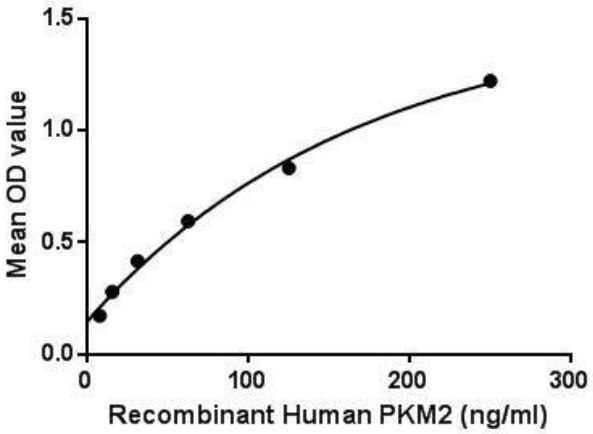


Figure. The binding activity of PKM2 with PIN1. Pyruvate Kinase, Muscle (PKM2) is one of four isozymes of pyruvate kinase. In vertebrates there are four isozymes of pyruvate kinase: L (liver), R (erythrocytes), M1 (muscles, hearts and brain) and M2 (only form detectable in early fetal tissue and present in most adult tissues). Pyruvate kinase is the enzyme that catalyzes the final step of glycolysis. It catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to adenosine diphosphate

(ADP), yielding one molecule of pyruvate and one molecule of ATP. Besides, Peptidyl Prolyl Cis/Trans Isomerase NIMA Interacting Protein 1 (PIN1) has been identified as an interactor of PKM2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human PKM2 and recombinant human PIN1. Briefly, PKM2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to PIN1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-PKM2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of PKM2 and PIN1 was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

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