

Pyruvate kinase isozymes M2 Active Protein | PKM2 active protein

Active Pyruvate kinase isozymes M2 (PKM2)

CATALOG #
AAA150096

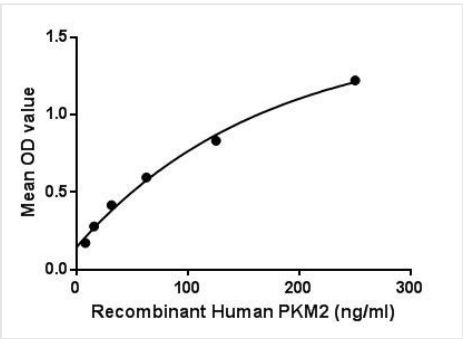
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Pyruvate kinase isozymes M2; Active Pyruvate kinase isozymes M2 (PKM2); M2PK; PKM; M2-PK; PKM1; CTHBP; OIP3; PK3; TCB; THBP1; Pyruvate kinase muscle isozyme; Thyroid hormone-binding protein 1; Cytosolic thyroid hormone-binding protein; Pyruvate Kinase; Muscle; PKM2 active protein

PRODUCT SPECIFICATIONS

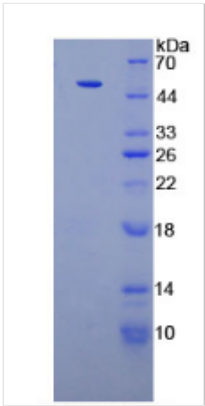
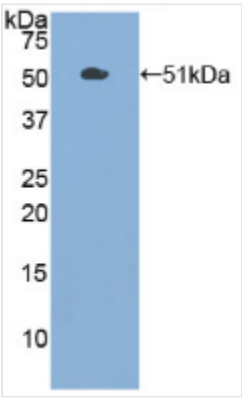
Purity/Purification	>97%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Arg294~Phe470
Sequence Length	605
Applicable Applications for PKM2 active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His and GST Tag
Isoelectric Point	8.3
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



Bioactivity

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 100uL 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 50uL 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.

WB (Western Blot)
Figure. Western Blot



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for PKM2 active protein	Enzyme & Kinase; Tumor immunity
---	---------------------------------

NCBI AND UNIPROT INFORMATION

NCBI GI #	332164775
NCBI GeneID	5315
NCBI Accession #	NP_001193725.1
NCBI GenBank Nucleotide #	NP_001193725.1
UniProt Accession #	P14618

Molecular Weight	Predicted Molecular Mass: 49.3kDa Accurate Molecular Mass: 50kDa
NCBI Official Full Name	pyruvate kinase PKM isoform c
NCBI Official Synonym Full Names	pyruvate kinase M1/2
NCBI Official Symbol	PKM
NCBI Official Synonym Symbols	PK3; TCB; p58; OIP3; PKM2; CTHBP; THBP1; HEL-S-30
NCBI Protein Information	pyruvate kinase PKM
UniProt Protein Name	Pyruvate kinase PKM
UniProt Gene Name	PKM
UniProt Synonym Gene Names	OIP3; PK2; PK3; PKM2; CTHBP; OIP-3; THBP1
UniProt Entry Name	KPYM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/pkm2-active-protein/pyruvate-kinase-isozymes-m2/150096>