# abcam

# Product datasheet

# Recombinant human PKM2 protein (Active) ab89364

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#### **Description**

Product name Recombinant human PKM2 protein (Active)

**Biological activity** Specific activity: > 25,000 pmol/min/ug.

One unit will convert 1.0 pmole of phospho(enol)pyruvate to pyruvate per minute at pH 7.5 at 37C.

Purity > 95 % SDS-PAGE.

ab89364 is purified using conventional chromatography techniques.

**Endotoxin level** < 1.000 Eu/µg

Expression system Escherichia coli

Accession P14618-1

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

Sequence 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 IPAEKVFLAQ KMMIGRCNRA GKPVICATQM LESMIKKPRP TRAEGSDVAN AVLDGADCIM LSGETAKGDY PLEAVRMQHL

IAREAEAAIY HLQLFEELRR LAPITSDPTE ATAVGAVEAS FKCCSGAIIV LTKSGRSAHQ VARYRPRAPI IAVTRNPQTA

RQAHLYRGIF PVLCKDPVQE AWAEDVDLRV NFAMNVGKAR GFFKKGDVVI VLTGWRPGSG

FTNTMRVVPV P

Predicted molecular weight 60 kDa

Amino acids 1 to 531

Tags His tag N-Terminus

Additional sequence information (NP\_002645)

## **Specifications**

Our **Abpromise guarantee** covers the use of **ab89364** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

Western blot SDS-PAGE

Form Liquid

Additional notes Endotioxin Levels determined by LAL method.

#### **Preparation and Storage**

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.316% Tris HCI, 10% Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### **General Info**

**Function** Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate

(PEP) to ADP, generating ATP. Stimulates POU5F1-mediated transcriptional activation. Plays a general role in caspase independent cell death of tumor cells. 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.

Tissue specificity Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma

cells, as well as cancer cells.

**Pathway** Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 5/5.

**Sequence similarities**Belongs to the pyruvate kinase family.

Post-translational Phosphorylated upon DNA damage, probably by ATM or ATR.

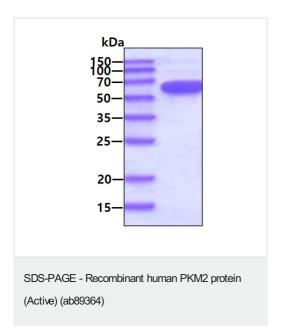
modifications ISGylated.

Cytoplasm. Nucleus. Translocates to the nucleus in response to different apoptotic stimuli.

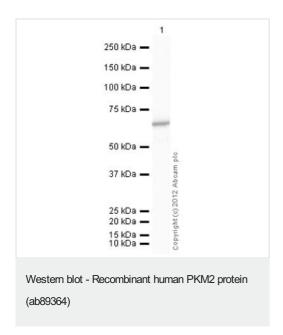
Nuclear translocation is sufficient to induce cell death that is caspase independent, isoform-

specific and independent of its enzymatic activty.

#### **Images**



3ug of reduced ab89364 on SDS-PAGE under reducing condition and visualized by coomassie blue stain.



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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