abcam

Product datasheet

Anti-PKM2 antibody ab85555

16 References 2 Images

Overview

Product name	Anti-PKM2 antibody
Description	Rabbit polyclonal to PKM2
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Orangutan
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	This antibody gave a positive signal in the following whole cell lysates: HeLa; MEL-1; HepG2; MCF7; Caco 2; SHSY-5Y; Raji
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab85555 in the following tested applications.

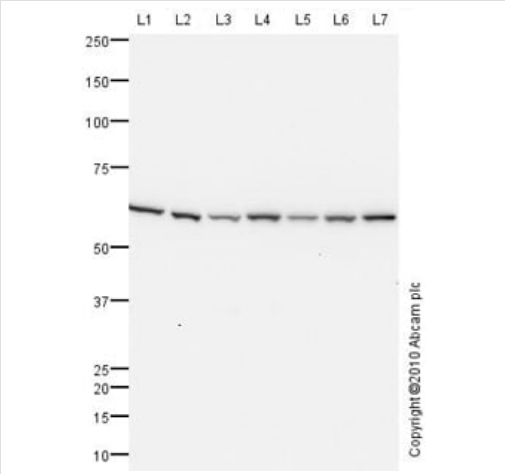
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 57 kDa (predicted molecular weight: 57 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

Target

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 modifications	Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated.
Cellular localization	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 actvity.

Images



Western blot - Anti-PKM2 antibody (ab85555)

All lanes : Anti-PKM2 antibody (ab85555) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : MEL-1 (Human embryonic stem cell, male cell line) Whole Cell Lysate (**ab27198**)
Lane 3 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 4 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 5 : Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate
Lane 6 : SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate
Lane 7 : Raji (Human Burkitt's lymphoma cell line) Whole Cell Lysate

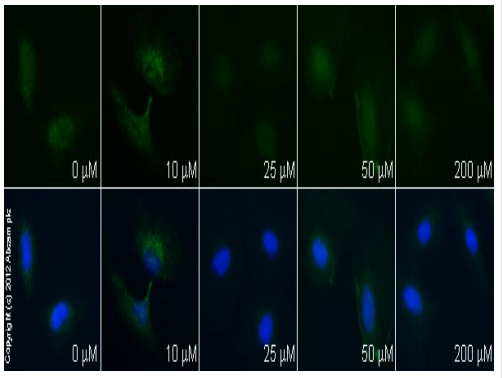
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 57 kDa
Observed band size: 57 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PKM2 antibody (ab85555)

ab85555 staining PKM2 in HeLa cells treated with resveratrol (**ab120726**), by ICC/IF. Decrease in PKM2 expression correlates with increased concentration of resveratrol as described in literature.

The cells were incubated at 37°C for 48h in media containing different concentrations of **ab120726** (resveratrol) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab85555 (5 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

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