

Product datasheet

Anti-PKM antibody ab137791

★★★★★ [6 Abreviews](#) [17 References](#) [8 Images](#)

Overview

Product name	Anti-PKM antibody
Description	Rabbit polyclonal to PKM
Host species	Rabbit
Tested applications	Suitable for: IP, WB, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment corresponding to Human PKM aa 243-531. Database link: P14618

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: 7.00 Preservative: 0.025% Proclin 300 Constituents: 79% PBS, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab137791 in the following tested applications.

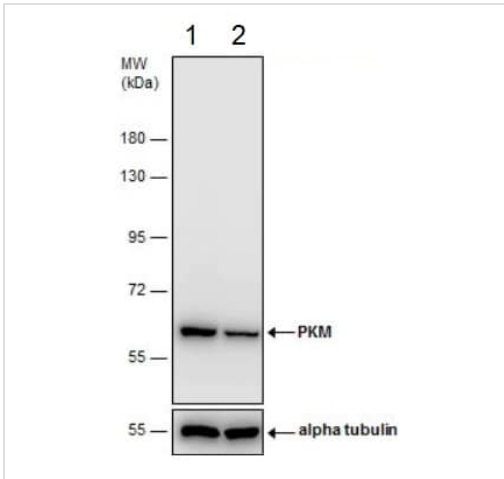
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		1/100 - 1/500.
WB	★★★★★ (6)	1/500 - 1/3000. Predicted molecular weight: 58 kDa.
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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	ISGylated. Under hypoxia, hydroxylated by EGLN3. Acetylation at Lys-305 is stimulated by high glucose concentration, it decreases enzyme activity and promotes its lysosomal-dependent degradation via chaperone-mediated autophagy. FGFR1-dependent tyrosine phosphorylation is reduced by interaction with TRIM35.
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 activity.

Images



Western blot - Anti-PKM antibody (ab137791)

All lanes : Anti-PKM antibody (ab137791) at 1/5000 dilution

Lane 1 : Non-transfected (-) HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lane 2 : HEK-293T whole cell extracts transfected (+) with PKM shRNA

Lysates/proteins at 30 µg per lane.

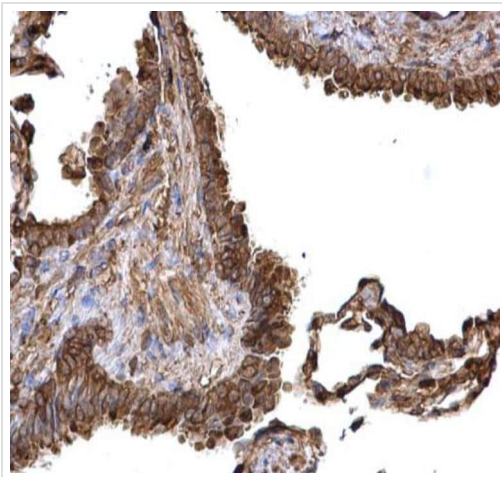
Secondary

All lanes : HRP-conjugated anti-rabbit IgG antibody

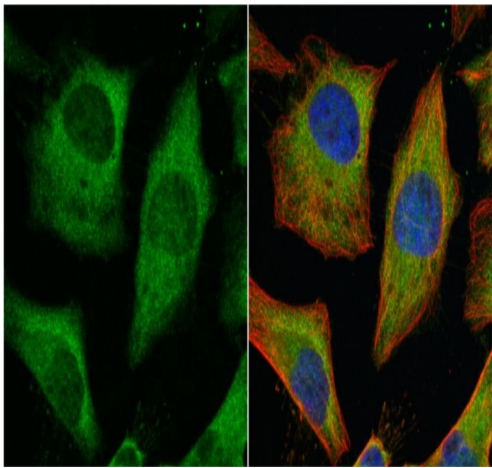
Predicted band size: 58 kDa

7.5% SDS-PAGE

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue staining PKM protein at cytosol with ab137791 at 1/500 dilution. Antigen Retrieval: EDTA based buffer, pH 8.0, 15min.

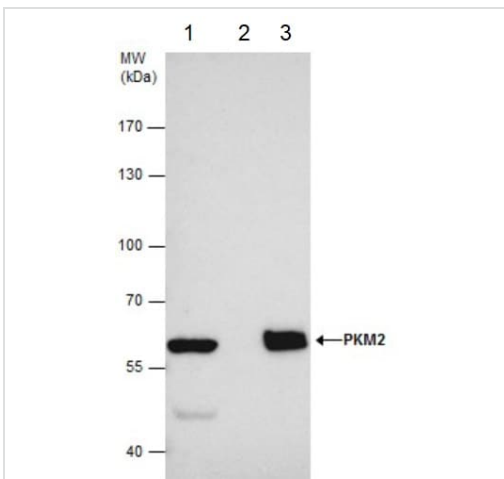


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKM antibody (ab137791)



Immunofluorescence analysis of 4% paraformaldehyde-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell labelling Pyruvate Kinase (muscle) antibody detects Pyruvate Kinase (muscle) protein at cytoplasm (green) with ab137791 at 1/500 dilution. Red: alpha Tubulin, a cytoskeleton marker, stained by alpha Tubulin antibody at 1/500 dilution. Blue: Hoechst 33342 staining.

Immunoprecipitation - Anti-PKM antibody
(ab137791)



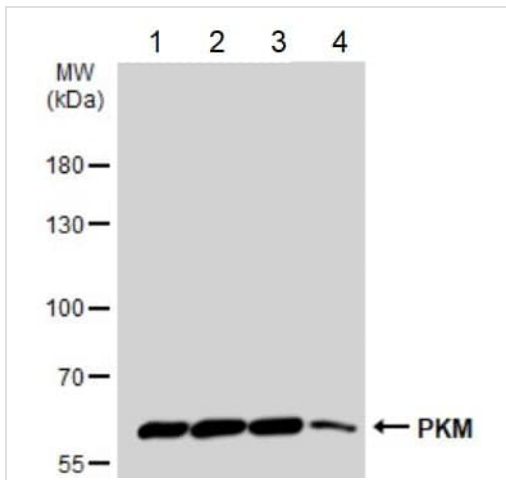
Immunoprecipitation of PKM2 protein from HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate using 5 µg of ab137791.

IP Sample:

- 1- HEK-293T cells
- 2- Control IgG
- 3- ab137791

Western blot analysis was performed using ab137791, followed by anti-Rabbit IgG antibody.

Immunoprecipitation - Anti-PKM antibody
(ab137791)



Western blot - Anti-PKM antibody (ab137791)

All lanes : Anti-PKM antibody (ab137791) at 1/1000 dilution

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lane 2 : A431 (human epidermoid carcinoma cell line) whole cell lysate

Lane 3 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 4 : HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG antibody

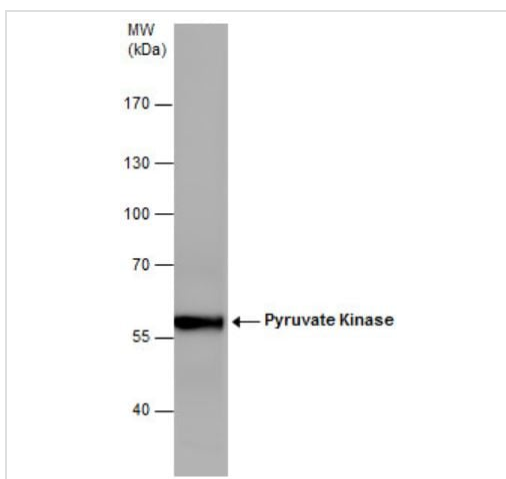
Predicted band size: 58 kDa

7.5% SDS-PAGE

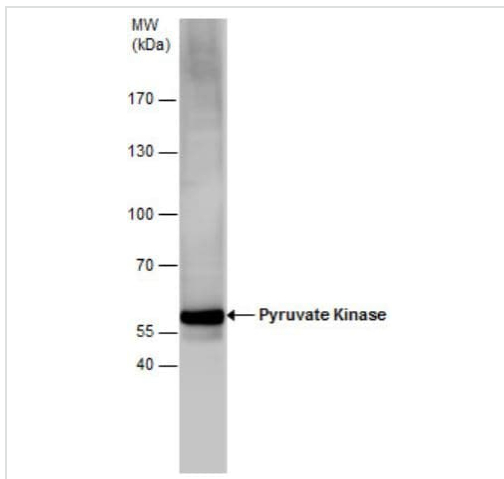
Mouse brain tissue lysate at 50 µg

Predicted band size: 58 kDa

7.5 % SDS-PAGE



Western blot - Anti-PKM antibody (ab137791)

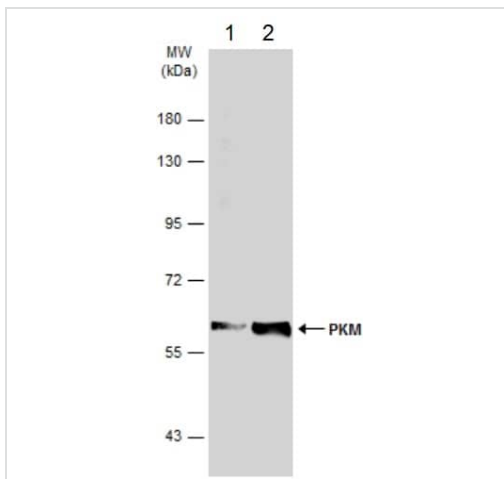


Western blot - Anti-PKM antibody (ab137791)

Anti-PKM antibody (ab137791) at 1/2000 dilution + Rat tissue lysate at 50 µg

Predicted band size: 58 kDa

7.5 % SDS-PAGE



Western blot - Anti-PKM antibody (ab137791)

All lanes : Anti-PKM antibody (ab137791) at 1/5000 dilution

Lane 1 : Non-transfected (-) HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lane 2 : Transfected (+) HEK-293T whole cell lysate

Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG antibody

Predicted band size: 58 kDa

7.5% SDS-PAGE

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