

## Product datasheet

### Anti-PKM antibody [EPR10139] ab154816

Recombinant RabMAb

[2 References](#) [8 Images](#)

#### Overview

<b>Product name</b>	Anti-PKM antibody [EPR10139]
<b>Description</b>	Rabbit monoclonal [EPR10139] to PKM
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human PKM (internal sequence). Database link: <a href="#">P14618</a>
<b>Positive control</b>	Human fetal muscle tissue lysate; HeLa; A549 and Jurkat cell lysates; Human kidney and cervical carcinoma tissue. IHC-P: Mouse and rat cerebrum. WB: Mouse and rat brain, testis and spleen tissue lysate.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

**Clone number**                      EPR10139  
**Isotype**                                IgG

## Applications

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**The Abpromise guarantee**        Our **Abpromise guarantee** covers the use of ab154816 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		1/1000 - 1/10000. Predicted molecular weight: 58 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

**Application notes**                      Is unsuitable for Flow Cyt, ICC/IF or IP.

## Target

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**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.

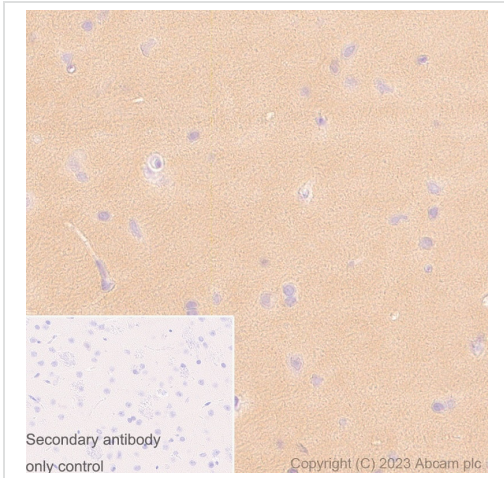
**Post-translational modifications**        ISGylated.  
Under hypoxia, hydroxylated by EGLN3.  
Acetylation at Lys-305 is stimulated by high glucose concentration, it decreases enzyme activity and promotes its lysosomal-dependent degradation via chaperone-mediated autophagy.  
FGFR1-dependent tyrosine 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.

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## Images

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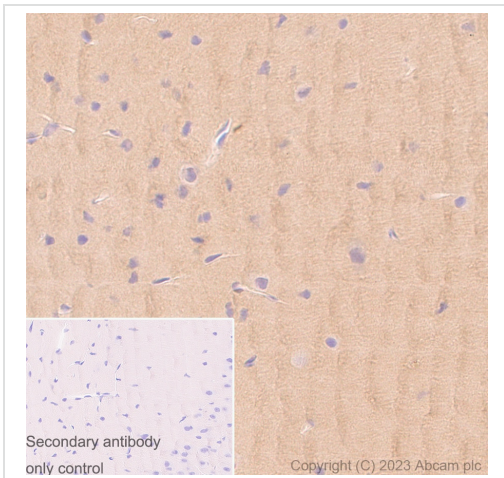
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKM antibody [EPR10139] (ab154816)

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling PKM with ab154816 at 1/10000 (0.103 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. The section was counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.

Positive staining on rat cerebrum. The section was incubated with ab154816 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



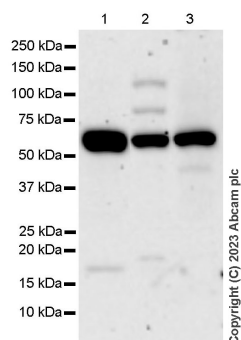
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKM antibody [EPR10139] (ab154816)

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling PKM with ab154816 at 1/10000 (0.103 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used. The section was counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) was used.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.

Positive staining on mouse cerebrum. The section was incubated with ab154816 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-PKM antibody [EPR10139]  
(ab154816)

**All lanes** : Anti-PKM antibody [EPR10139] (ab154816) at 1/1000 dilution

**Lane 1** : Rat brain tissue lysate

**Lane 2** : Rat testis tissue lysate

**Lane 3** : Rat spleen tissue lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

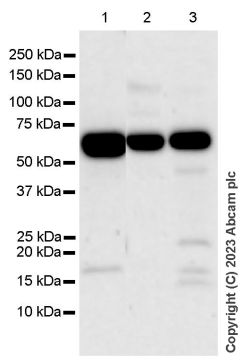
**Predicted band size:** 58 kDa

**Observed band size:** 58 kDa

**Exposure time:** 180 seconds

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The lysates were freshly made and used for Western Blotting immediately to minimize protein degradation.



Western blot - Anti-PKM antibody [EPR10139] (ab154816)

**All lanes** : Anti-PKM antibody [EPR10139] (ab154816) at 1/1000 dilution

**Lane 1** : Mouse brain tissue lysate

**Lane 2** : Mouse testis tissue lysate

**Lane 3** : Mouse spleen tissue lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

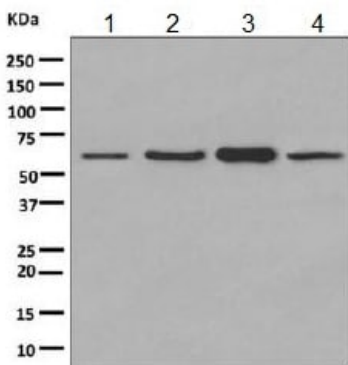
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Western blot - Anti-PKM antibody [EPR10139] (ab154816)

**All lanes** : Anti-PKM antibody [EPR10139] (ab154816) at 1/1000 dilution

**Lane 1** : Human fetal muscle tissue lysate

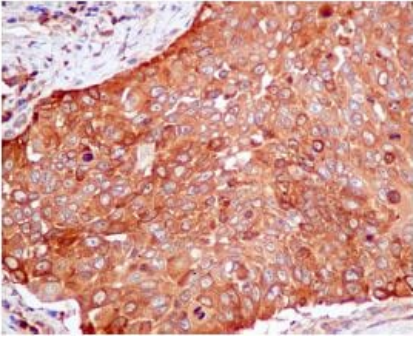
**Lane 2** : HeLa cell lysate

**Lane 3** : A549 cell lysate

**Lane 4** : Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

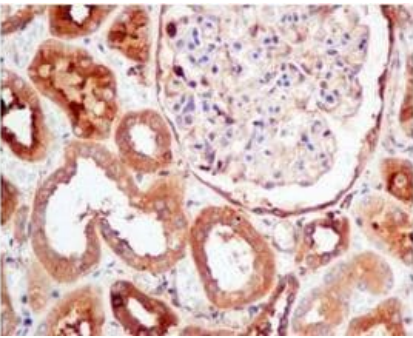
**Predicted band size:** 58 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKM antibody  
[EPR10139] (ab154816)

Immunohistochemical analysis of paraffin-embedded Human cervical carcinoma, labeling PKM using ab154816 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PKM antibody  
[EPR10139] (ab154816)

Immunohistochemical analysis of paraffin-embedded human kidney, labeling PKM using ab154816 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-PKM antibody [EPR10139] (ab154816)

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

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