abcam

Product datasheet

Anti-Pyruvate kinase isozyme M1 antibody ab116271

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概述

产品名称	Anti-Pyruvate kinase isozyme M1抗体
描述	**兔多克隆抗体**to Pyruvate kinase isozyme M1
宿主	Rabbit
经测试应用	**适用于:** WB, ICC/IF, IHC-P
种属反应性	**与反应:** Mouse, Human **预测可用于:** Horse, Pig, Chimpanzee, Macaque monkey, Gorilla, Orangutan, Elephant
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Human fetal heart tissue lysate and HEK293, U87MG, A549, THP1, HepG2 and NIH3T3 whole cell lysates. IHC-P: Human lung adenocarcinoma tissue. ICC/IF: A549 cells.
常规说明	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

性能

形式	Liquid
存放说明	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.
存储溶液	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.
纯度	Immunogen affinity purified
克隆	**多克隆**

同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab116271于以下的经测试应用**

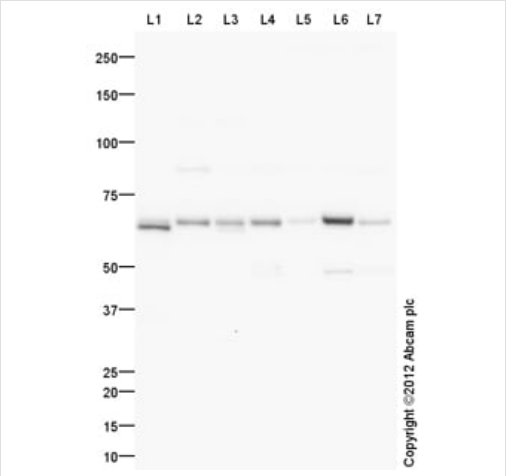
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 65 kDa (predicted molecular weight: 58 kDa).
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 5 µg/ml.

靶标

功能	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 betwween 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.
组织特异性	Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma cells, as well as cancer cells.
通路	Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 5/5.
序列相似性	Belongs to the pyruvate kinase family.
翻译后修饰	Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated. Under hypoxia, hydroxylated by EGLN3.
细胞定位	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.

图片



Western blot - Anti-Pyruvate kinase isozyme M1 antibody (ab116271)

All lanes : Anti-Pyruvate kinase isozyme M1 antibody (ab116271) at 1 µg/ml

Lane 1 : Heart (Human) Whole Cell Lysate - fetal normal tissue
Lane 2 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate
Lane 3 : U-87 MG (Human glioblastoma astrocytoma) Whole Cell Lysate
Lane 4 : A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate
Lane 5 : THP1 (Human acute monocytic leukemia cell line) Whole Cell Lysate
Lane 6 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 7 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

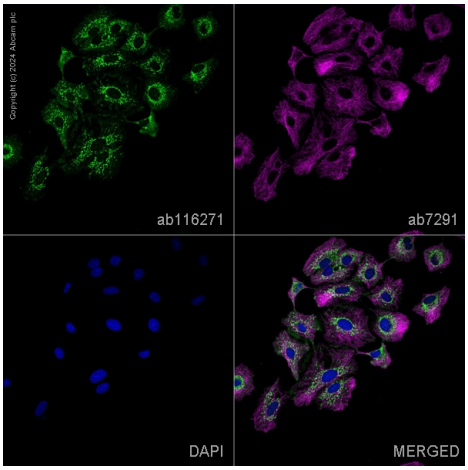
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

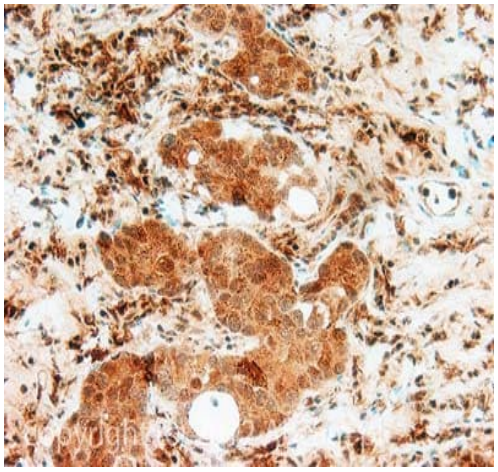
Predicted band size: 58 kDa
Observed band size: 65 kDa
Additional bands at: 49 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 2 minutes



Immunocytochemistry/ Immunofluorescence - Anti-Pyruvate kinase isozyme M1 antibody (ab116271)

ab116271 staining Pyruvate kinase isozyme M1 in A549 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab116271 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue). Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pyruvate kinase isozyme M1 antibody (ab116271)

IHC image of PKM2 staining in Human lung adenocarcinoma formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab116271, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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