


Anti-AK2 antibody [EPR11388(B)] ab166901

敲除验证
重组
RabMAb

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概述

产品名称	Anti-AK2抗体[EPR11388(B)]
描述	兔单克隆抗体[EPR11388(B)] to AK2
宿主	Rabbit
经测试应用	适用于: WB, IHC-P, ICC/IF, IP 不适用于: Flow Cyt
种属反应性	与反应: Human 预测可用于: Mouse, Rat 
免疫原	Synthetic peptide within Human AK2. The exact sequence is proprietary.
阳性对照	WB: Fetal kidney, Fetal liver, HEK-293T, HL-60, HepG2, MCF-7 and HeLa lysates. IHC-P: Paraffin-embedded Human kidney tissue and paraffin-embedded Human stomach tissue. ICC: MCF7 cells.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
纯度	Protein A purified
克隆	单克隆

克隆编号	EPR11388(B)
同种型	IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab166901于以下的经测试应用

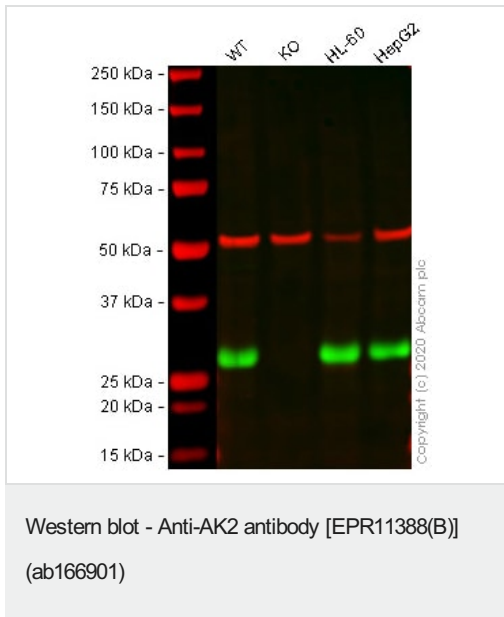
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/1000 - 1/5000. Predicted molecular weight: 26 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/500. For unpurified use at 1/100 - 1/250.
IP		1/10 - 1/100.

应用说明 Is unsuitable for Flow Cyt.

靶标

功能	Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. This small ubiquitous enzyme involved in energy metabolism and nucleotide synthesis that is essential for maintenance and cell growth. Plays a key role in hematopoiesis.
组织特异性	Present in most tissues. Present at high level in heart, liver and kidney, and at low level in brain, skeletal muscle and skin. Present in thrombocytes but not in erythrocytes, which lack mitochondria. Present in all nucleated cell populations from blood, while AK1 is mostly absent. In spleen and lymph nodes, mononuclear cells lack AK1, whereas AK2 is readily detectable. These results indicate that leukocytes may be susceptible to defects caused by the lack of AK2, as they do not express AK1 in sufficient amounts to compensate for the AK2 functional deficits (at protein level).
疾病相关	Defects in AK2 are the cause of reticular dysgenesis (RDYS) [MIM:267500]; also known as aleukocytosis. RDYS is the most severe form of inborn severe combined immunodeficiencies (SCID) and is characterized by absence of granulocytes and almost complete deficiency of lymphocytes in peripheral blood, hypoplasia of the thymus and secondary lymphoid organs, and lack of innate and adaptive humoral and cellular immune functions, leading to fatal septicemia within days after birth. In bone marrow of individuals with reticular dysgenesis, myeloid differentiation is blocked at the promyelocytic stage, whereas erythro- and megakaryocytic maturation is generally normal.In addition, affected newborns have bilateral sensorineural deafness. Defects may be due to its absence in leukocytes and inner ear, in which its absence can not be compensated by AK1.
序列相似性	Belongs to the adenylate kinase family. AK2 subfamily.
细胞定位	Mitochondrion intermembrane space.



All lanes : Anti-AK2 antibody [EPR11388(B)] (ab166901) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate

Lane 2 : AK2 knockout HEK-293T cell lysate

Lane 3 : HL-60 cell lysate

Lane 4 : HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

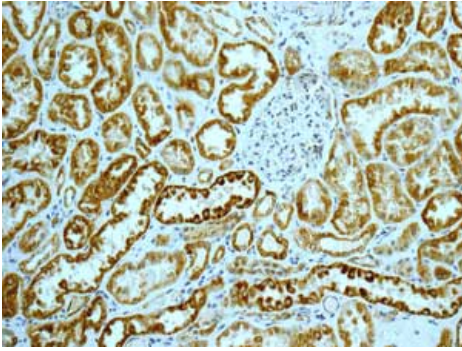
Performed under reducing conditions.

Predicted band size: 26 kDa

Observed band size: 26 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab166901 observed at 26 kDa. Red - loading control **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) observed at 55kDa.

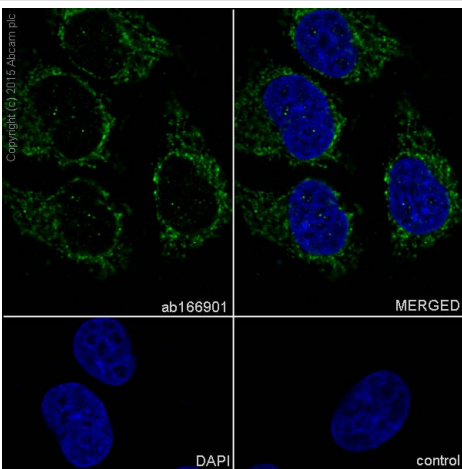
ab166901 was shown to react with AK2 in wild-type HEK-293T cells in western blot with loss of signal observed in AK2 knockout cell line **ab266539** (AK2 knockout cell lysate **ab257825**). Wild-type and AK2 knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab166901 and **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AK2 antibody
[EPR11388(B)] (ab166901)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling AK2 using ab166901 at 1/100 dilution.

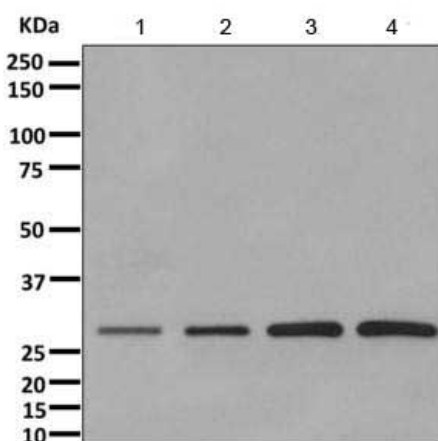
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-AK2 antibody [EPR11388(B)] (ab166901)

Immunocytochemistry/Immunofluorescence analysis MCF-7 (human breast carcinoma) cells labelling AK2 with purified ab166901 at a dilution of 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilised with 0.1% tritonX-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (**ab150077**) at dilution of 1/1000 was used as the secondary antibody. Nuclei counterstained with DAPI (blue).

Secondary Only Control: PBS was used instead of the primary antibody as the negative control.



Western blot - Anti-AK2 antibody [EPR11388(B)]
(ab166901)

All lanes : Anti-AK2 antibody [EPR11388(B)] (ab166901) at 1/1000 dilution

Lane 1 : Fetal kidney lysate

Lane 2 : Fetal liver lysate

Lane 3 : HepG2 cell lysate

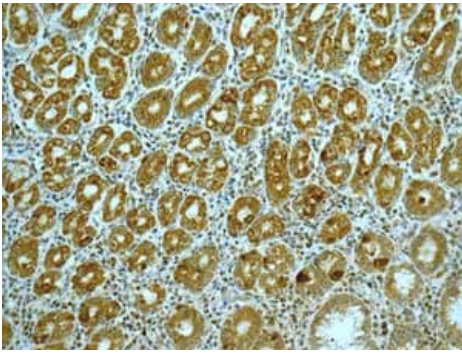
Lane 4 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : goat anti-rabbit HRP antibody at 1/2000 dilution

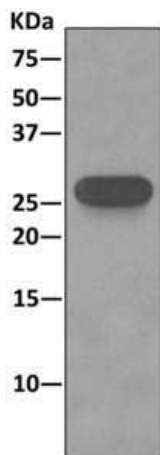
Predicted band size: 26 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AK2 antibody
[EPR11388(B)] (ab166901)

Immunohistochemical analysis of paraffin-embedded Human stomach tissue labeling AK2 using ab166901 at 1/100 dilution.

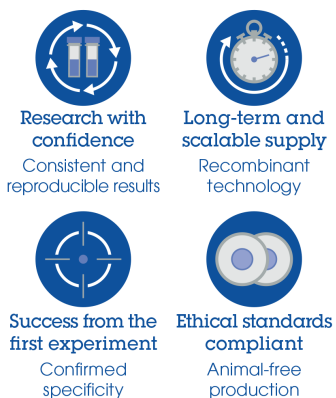
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-AK2 antibody
[EPR11388(B)] (ab166901)

Immunoprecipitation of AK2 from HeLa cell lysate pellet using ab166901 at 1/10 dilution followed by immunoblotting. HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

Why choose a recombinant antibody?



Anti-AK2 antibody [EPR11388(B)] (ab166901)

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