abcam

Product datasheet

Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker ab150423

敲除验证 重组 RabMAb

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概述

产品名称	Anti-Hexokinase 1抗体[EPR10134(B)] - Mitochondrial Outer膜Marker
描述	兔单克隆抗体[EPR10134(B)] to Hexokinase 1 - Mitochondrial Outer膜Marker
宿主	Rabbit
经测试应用	**适用于:** WB, IHC-P, Flow Cyt (Intra), ICC/IF, mIHC
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide corresponding to Human Hexokinase 1 aa 100-200 (internal sequence).
阳性对照	WB: HEK-293T and MCF7 cells, human mouse and rat brain lysates; IHC: Human, mouse and rat kidney tissue; ICC/IF: MCF7 lysate; Flow Cyt (intra): K-562 cells. mIHC-P: Human kidney tissue.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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. Avoid freeze / thaw cycle.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR10134(B)

同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab150423于以下的经测试应用

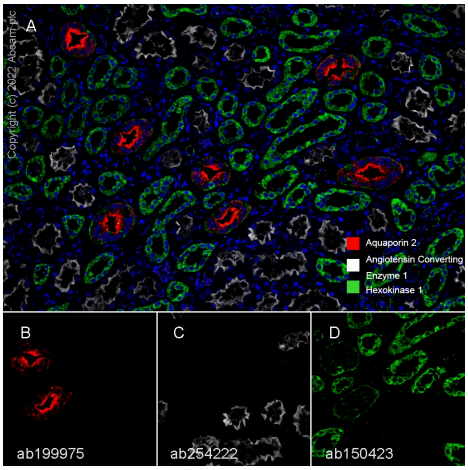
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (4)	1/1000 - 1/10000. Predicted molecular weight: 102 kDa.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/20. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/50.
mIHC		1/250.

靶标

组织特异性	Isoform 2 is erythrocyte specific. Isoform 3 and isoform 4 are testis-specific.
通路	Carbohydrate metabolism; hexose metabolism.
疾病相关	Hexokinase deficiency Neuropathy, hereditary motor and sensory, Russe type
序列相似性	Belongs to the hexokinase family. Contains 2 hexokinase domains.
结构域	The N- and C-terminal halves of this hexokinase show extensive sequence similarity to each other. The catalytic activity is associated with the C-terminus while regulatory function is associated with the N-terminus. Each domain can bind a single glucose and Gluc-6-P molecule.
细胞定位	Mitochondrion outer membrane. Its hydrophobic N-terminal sequence may be involved in membrane binding.

图片



Multiplex immunohistochemistry - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

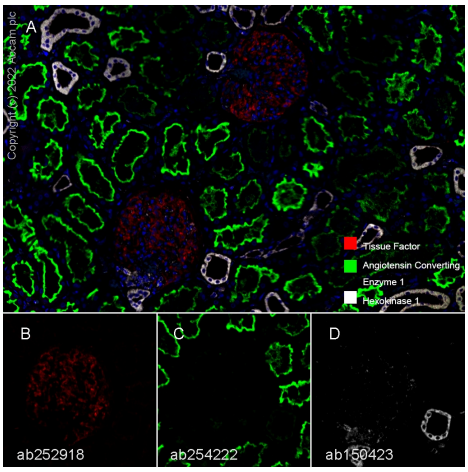
Fluorescence multiplex immunohistochemical analysis of the human kidney (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-Hexokinase 1 (ab150423, green; Opal™690), anti-Angiotensin Converting Enzyme 1 (**ab254222**, gray; Opal™520) and anti-Aquaporin 2 (**ab199975**, red; Opal™570) on human kidney. Panel B: anti-Aquaporin 2 stained on collecting tubules. Panel C: anti-Angiotensin Converting Enzyme 1 stained on proximal tubules. Panel D: anti-Hexokinase 1 stained on distal tubules and collecting tubules. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of ab150423 at 1/250 dilution (4.224 µg/ml), **ab254222** at 1/4000 dilution (0.141 µg/ml) and **ab199975** at 1/4000 dilution (0.152 µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. DAPI (blue) was used as a nuclear counter stain.

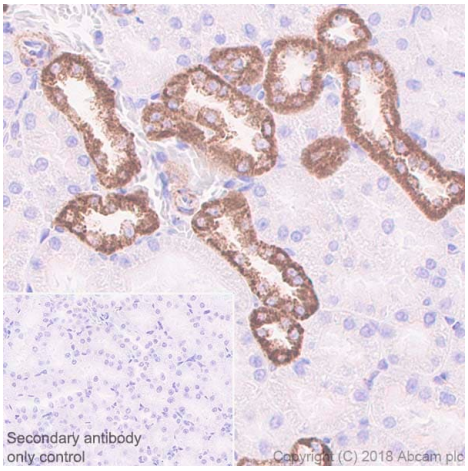


Multiplex immunohistochemistry - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

Fluorescence multiplex immunohistochemical analysis of paraffin-embedded Human kidney tissue.

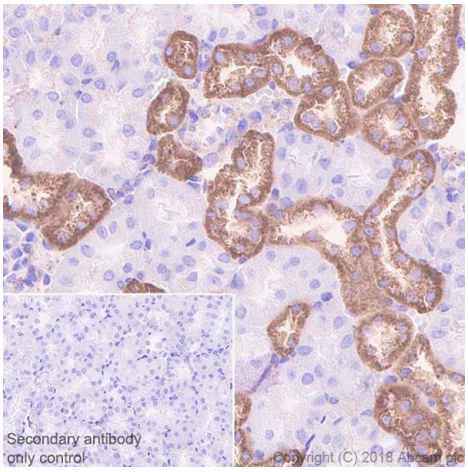
Panel A: Merged staining of anti-Hexokinase 1 (gray; Opal™690), anti-Angiotensin Converting Enzyme 1 (green; Opal™520) and anti-Tissue Factor (red; Opal™570) on human kidney.
Panel B: Anti-Tissue Factor stained on renal glomeruli.
Panel C: Anti-Angiotensin Converting Enzyme 1 stained on proximal tubules.
Panel D: Anti-Hexokinase 1 stained on distal tubules.

The section was incubated in three rounds of staining: in the order of ab150423, **ab254222**, and **ab252918** for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Counterstained with DAPI.



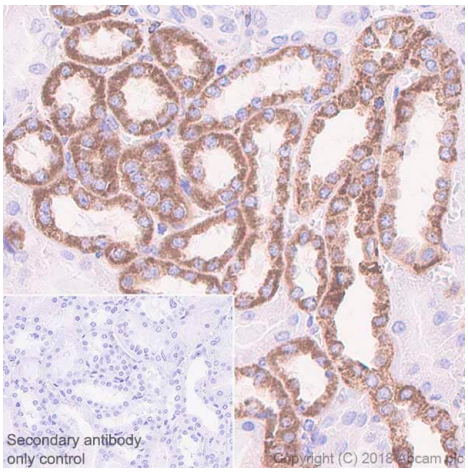
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat kidney tissue sections labeling Hexokinase 1 with purified ab150423 at 1/50 dilution (4.14 µg/mL). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



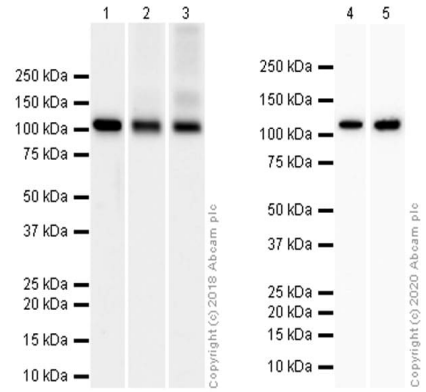
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse kidney tissue sections labeling Hexokinase 1 with purified ab150423 at 1/50 dilution (4.14 µg/mL). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human kidney tissue sections labeling Hexokinase 1 with purified ab150423 at 1/50 dilution (4.14 µg/mL). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



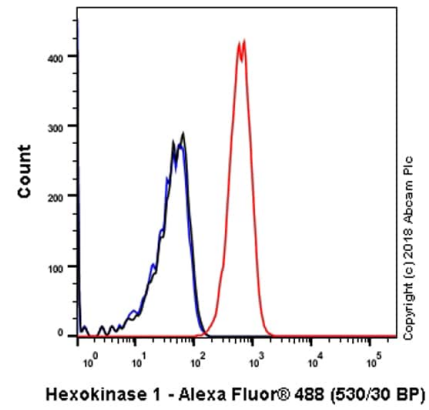
Western blot - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

All lanes : Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423) at 1/1000 dilution (Purified)

Lane 1 : Human brain lysate
Lane 2 : Mouse brain lysate
Lane 3 : Rat brain lysate
Lane 4 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate
Lane 5 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

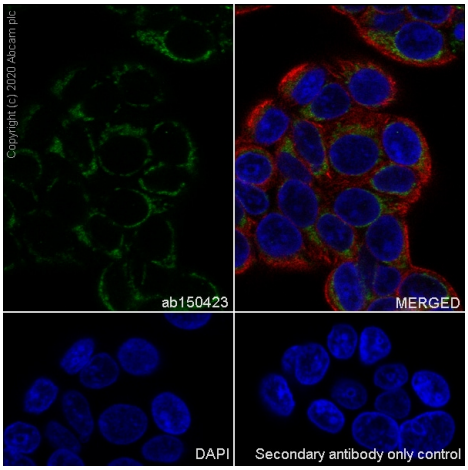
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 102 kDa



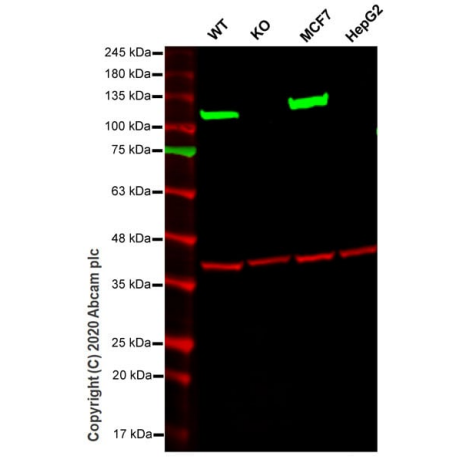
Flow Cytometry (Intracellular) - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

Intracellular Flow Cytometry analysis of K-562 (Human chronic myelogenous leukemia lymphoblast) cells labeling Hexokinase 1 with Purified ab150423 at 1/20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488 ,**ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

Immunocytochemistry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Hexokinase 1 with Purified ab150423 at 1:50 dilution (4.1 µg/ml). Cells were fixed in 100% Methanol and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488,**ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

All lanes : Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate
Lane 2 : HK1 knockout HeLa cell lysate
Lane 3 : MCF7 cell lysate
Lane 4 : HEPG2 cell lysate

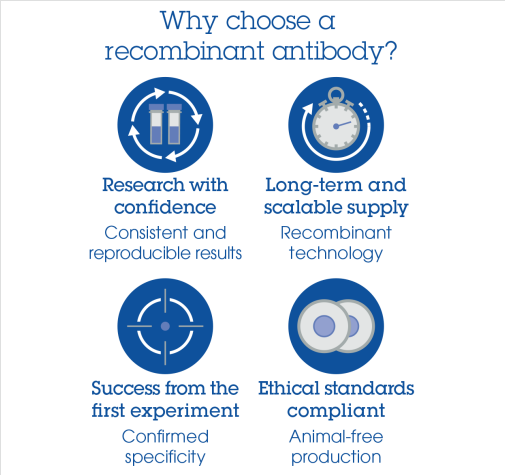
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 102 kDa
Observed band size: 102 kDa

Lanes 1-4: Merged signal (red and green). Green - ab150423 observed at 102 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab150423 Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial was shown to specifically react with Hexokinase 1 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab267279** (knockout cell lysate **ab257161**) was used. Wild-type and Hexokinase 1 knockout samples were subjected to SDS-PAGE. ab150423 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

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