

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

KO 評価済 リコンビナント RabMAb

★★★★★ 4 Abreviews 12 References 画像数 10

### 製品の概要

製品名	Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker
製品の詳細	Rabbit monoclonal [EPR10134(B)] to Hexokinase 1 - Mitochondrial Outer Membrane Marker
由来種	Rabbit
アプリケーション	適用あり: WB, IHC-P, Flow Cyt (Intra), ICC/IF, mlHC
種交差性	交差種: Mouse, Rat, Human
免疫原	Synthetic peptide corresponding to Human Hexokinase 1 aa 100-200 (internal sequence).
ポジティブ・コントロール	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. mlHC-P: Human kidney tissue.
特記事項	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <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> <p>For more information <a href="#">see here</a>.</p> <p>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>.</p>

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
バッファー	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR10134(B)

アイソタイプlgG

アプリケーション

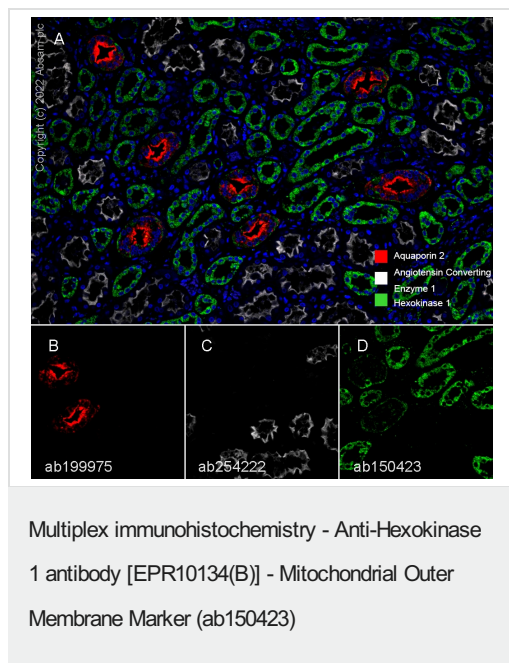
The Abpromise guarantee      **Abpromise保証は、次のテスト済みアプリケーションにおけるab150423の使用に適用されます**  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
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. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/50.
mlHC		1/250.

ターゲット情報

組織特異性	Isoform 2 is erythrocyte specific. Isoform 3 and isoform 4 are testis-specific.
パスウェイ	Carbohydrate metabolism; hexose metabolism.
関連疾患	Hexokinase deficiency Neuropathy, hereditary motor and sensory, Russe type
配列類似性	Belongs to the hexokinase family. Contains 2 hexokinase domains.
ドメイン	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.
細胞内局在	Mitochondrion outer membrane. Its hydrophobic N-terminal sequence may be involved in membrane binding.

画像



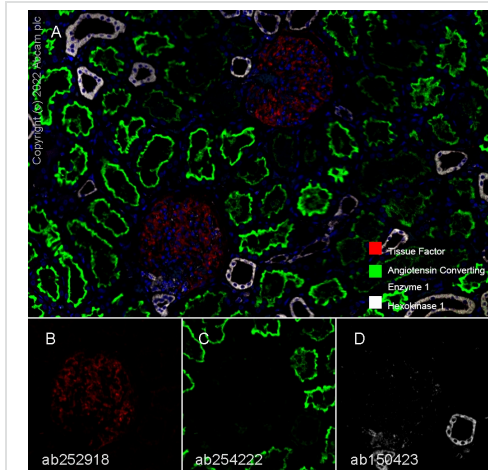
Fluorescence multiplex immunohistochemical analysis of the human kidney (Formalin/PFA-fixed paraffin-embedded sections).

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.

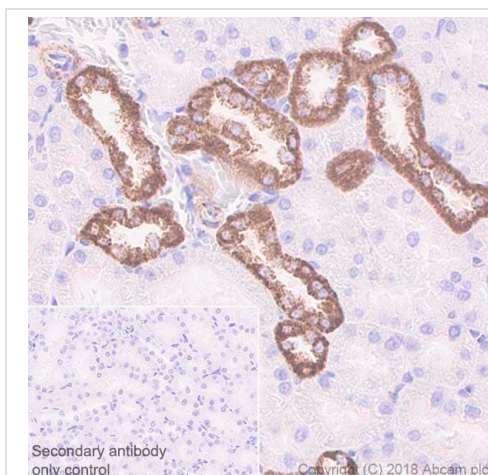
Panel A: Merged staining of anti-Hexokinase 1 (gray; Opal™690), anti-Angiotensin Converting Enzyme 1 (green; Opal™520) and anti-Tissue Factor (red; Opal™570) on human kidney.

Panel B: Anti-Tissue Factor stained on renal glomeruli.

Panel C: Anti-Angiotensin Converting Enzyme 1 stained on proximal tubules.

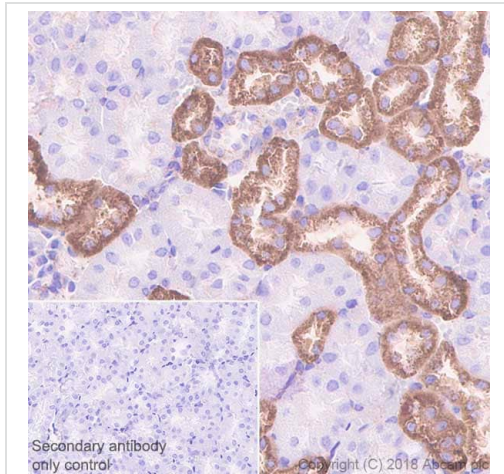
Panel D: Anti-Hexokinase 1 stained on distal tubules.

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.



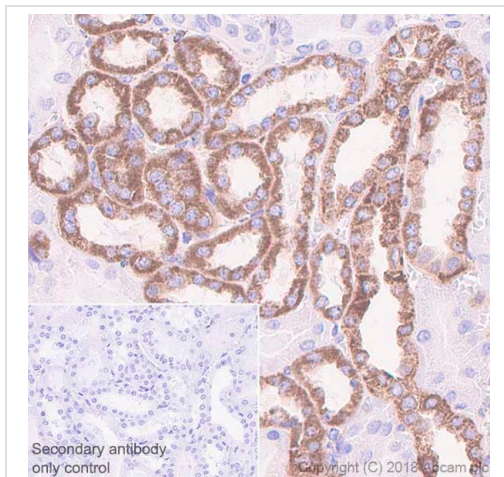
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

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.



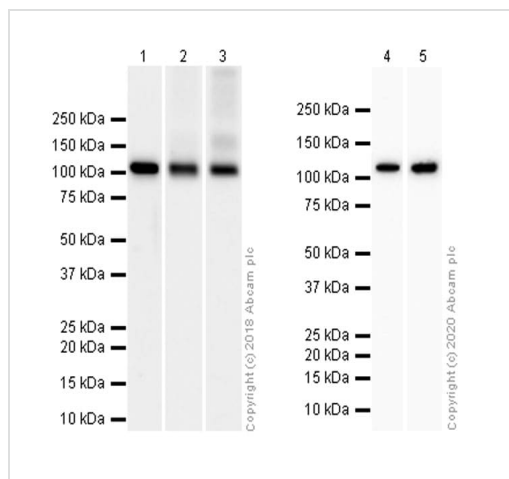
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase 1 antibody [EPR10134(B)] - Mitochondrial Outer Membrane Marker (ab150423)

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

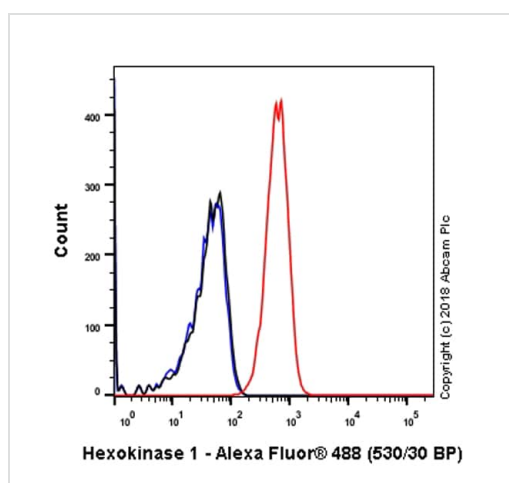
**Lane 4 :** HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

**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

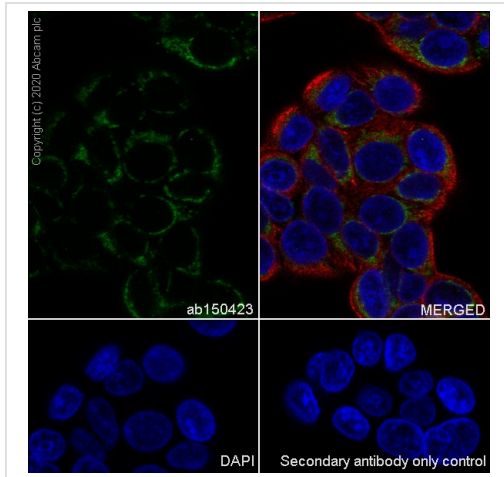
**Predicted band size:** 102 kDa



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

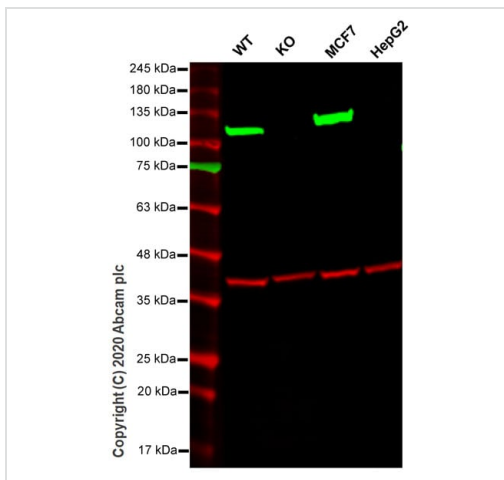
Intracellular Flow Cytometry analysis of K-562 (Human chronic myelogenous leukemia lymphoblast) cells labeling Hexokinase 1 with Purified ab150423 at 1/20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [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.

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

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

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