

Anti-IDH1 antibody [EPR21002] ab230949

敲除验证
重组
RabMAb

11 图像

概述

产品名称	Anti-IDH1抗体[EPR21002]
描述	兔单克隆抗体[EPR21002] to IDH1
宿主	Rabbit
经测试应用	适用于: Flow Cyt (Intra), WB, IHC-P, IP 不适用于: ICC/IF
种属反应性	与反应: Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: SH-SY5Y, Raji, C2C12, Neuro-2a, HepG2, HAP1, HeLa, C6 and PC-12 whole cell lysates; Human fetal brain and fetal kidney lysates. IHC-P: Human stomach, glioblastoma and endometrium cancer tissues; Mouse and rat kidney tissues. Flow Cyt (intra): HeLa cells. IP: SH-SY5Y whole cell lysate.
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
纯度	Protein A purified
克隆	单克隆

克隆编号EPR21002

同种型IgG

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab230949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
Flow Cyt (Intra)		1/50.
WB		1/1000. Detects a band of approximately 47 kDa (predicted molecular weight: 46 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		1/30.

应用说明

Is unsuitable for ICC/IF.

靶标

疾病相关

Glioma

Genetic variations are associated with cartilaginous tumors such as enchondroma or chondrosarcoma. Mutations of Arg-132 to Cys, Gly or His abolish the conversion of isocitrate to alpha-ketoglutarate. Instead, alpha-ketoglutarate is converted to R(-)-2-hydroxyglutarate.

序列相似性

Belongs to the isocitrate and isopropylmalate dehydrogenases family.

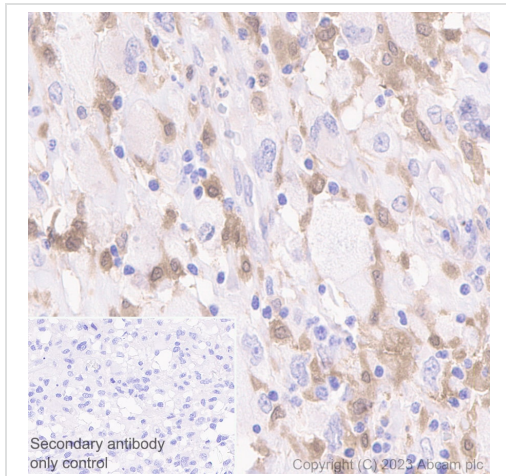
翻译后修饰

Acetylation at Lys-374 dramatically reduces catalytic activity.

细胞定位

Cytoplasm. Peroxisome.

图片

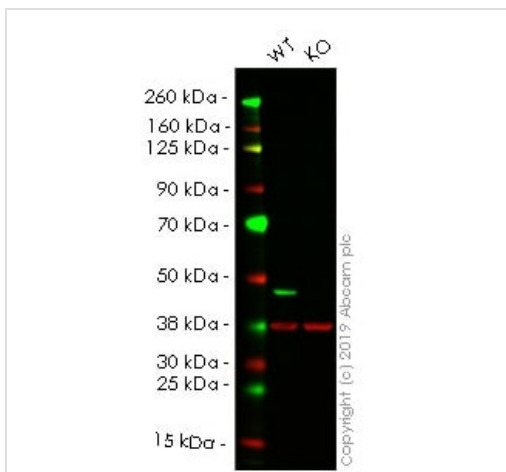


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IDH1 antibody [EPR21002] (ab230949)

Immunohistochemical analysis of paraffin-embedded human glioblastoma tissue labeling IDH1 with ab230949 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP). Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Positive staining on human glioblastoma. The section was incubated with ab230949 at 4°C overnight.



Western blot - Anti-IDH1 antibody [EPR21002] (ab230949)

All lanes : Anti-IDH1 antibody [EPR21002] (ab230949) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : IDH1 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

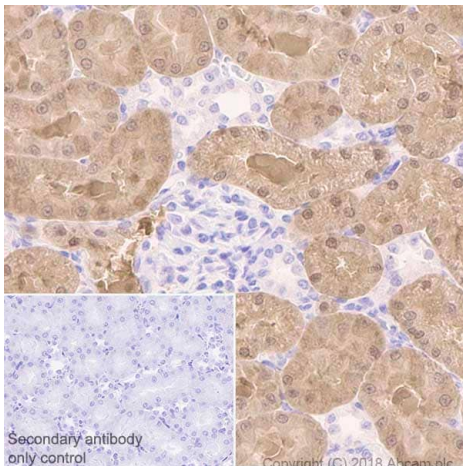
Predicted band size: 46 kDa

Observed band size: 46 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab230949 observed at 46 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

ab230949 was shown to react with IDH1 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line [ab264916](#) (knockout cell lysate [ab257221](#)) was used. Wild-type HeLa and IDH1 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab230949 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 1000 dilution and a 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 20000 dilution for 1 hour at room temperature before imaging.

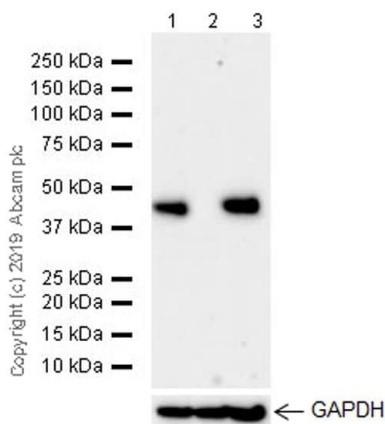


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IDH1 antibody [EPR21002] (ab230949)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling IDH1 with ab230949 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic and nuclear staining in rat kidney (PMID:30153799). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-IDH1 antibody [EPR21002] (ab230949)

All lanes : Anti-IDH1 antibody [EPR21002] (ab230949) at 1/1000 dilution

Lane 1 : Wild type HAP1 whole cell lysate

Lane 2 : IDH1 knockout HAP1 whole cell lysate

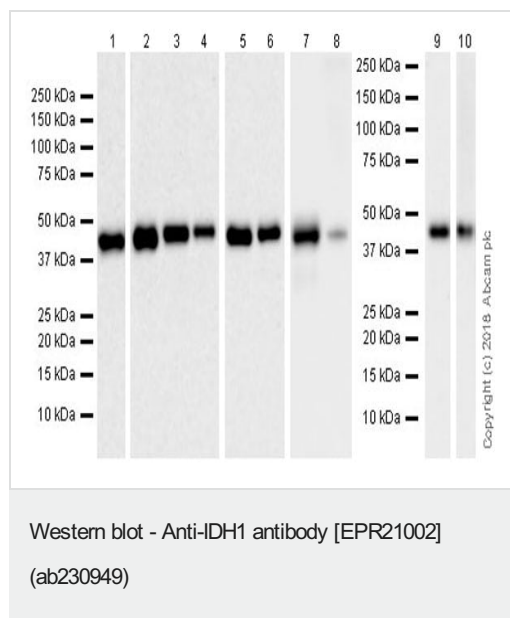
Lane 3 : SH-SY5Y (human neuroblastoma epithelial cell), whole cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 46 kDa

Exposure time: 62 seconds

ab230949 was shown to specifically react with IDH1 in wild-type HAP1 cells as signal was lost in IDH1 knockout cells. Wild-type and IDH1 knockout samples were subjected to SDS-PAGE. ab230949 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated 1 hour at room temperature at 1/1000 dilution and 1/200,000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-IDH1 antibody [EPR21002] (ab230949) at 1/1000 dilution

Lane 1 : SH-SY5Y (human neuroblastoma cell line from bone marrow) whole cell lysate at 20 µg

Lane 2 : Raji (human Burkitt's lymphoma cell line) whole cell lysate at 20 µg

Lane 3 : C2C12 (mouse myoblast cell line) whole cell lysate at 20 µg

Lane 4 : Neuro-2a (mouse neuroblastoma cell line) whole cell lysate at 20 µg

Lane 5 : Human fetal brain lysate at 20 µg

Lane 6 : Human fetal kidney lysate at 20 µg

Lane 7 : HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate at 20 µg

Lane 8 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 9 : C6 (rat glial tumor cell line) whole cell lysate at 10 µg

Lane 10 : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysate at 10 µg

Secondary

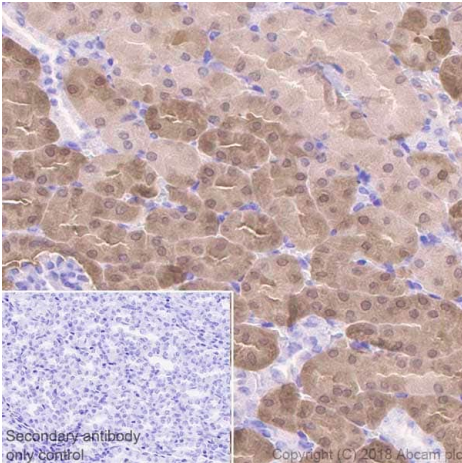
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 46 kDa

Observed band size: 47 kDa

Exposure times: Lanes 1-6: 3 minutes; Lanes 7-8: 15 seconds; Lanes 9-10: 58 seconds.

Blocking/Dilution buffer: 5% NFDM/TBST.

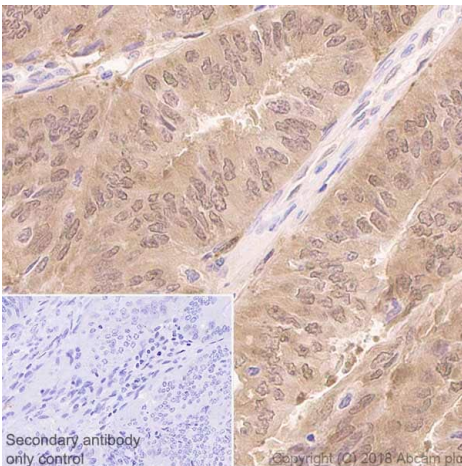


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IDH1 antibody [EPR21002] (ab230949)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling IDH1 with ab230949 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic and nuclear staining in mouse kidney (PMID:30153799). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

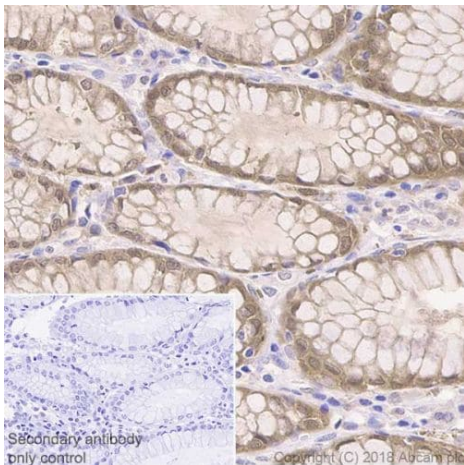


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IDH1 antibody [EPR21002] (ab230949)

Immunohistochemical analysis of paraffin-embedded human endometrium cancer tissue labeling IDH1 with ab230949 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic and nuclear staining in human endometrium cancer (PMID:29921847). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

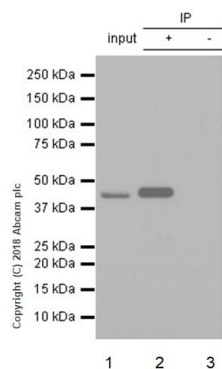


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IDH1 antibody [EPR21002] (ab230949)

Immunohistochemical analysis of paraffin-embedded human stomach tissue labeling IDH1 with ab230949 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic and nucleus staining in human stomach (PMID:27466503). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-IDH1 antibody [EPR21002] (ab230949)

IDH1 was immunoprecipitated from 0.35 mg of SH-SY5Y (human neuroblastoma cell line from bone marrow) whole cell lysate with ab230949 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab230949 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

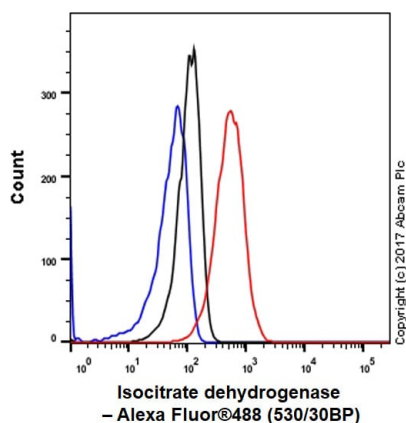
Lane 1: SH-SY5Y whole cell lysate 10 µg (Input).

Lane 2: ab230949 IP in SH-SY5Y whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab230949 in SH-SY5Y whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

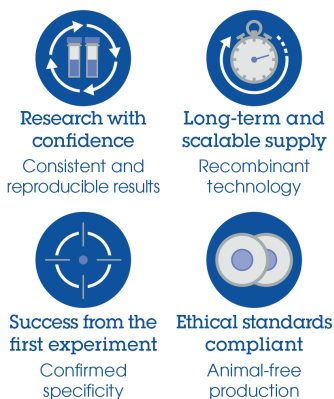
Exposure time: 30 seconds.



Flow Cytometry (Intracellular) - Anti-IDH1 antibody
[EPR21002] (ab230949)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling IDH1 with ab230949 at 1/60 dilution (**red**) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) (**black**) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (**blue**). Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (**ab150077**) at 1/2000 dilution was used as the secondary antibody.

Why choose a recombinant antibody?



Anti-IDH1 antibody [EPR21002] (ab230949)

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

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