

# Anti-IDH1 antibody [EPR12296] - BSA and Azide free ab214803


KO VALIDATED

Recombinant

RabMAb

6 Images

### Overview

Product name	Anti-IDH1 antibody [EPR12296] - BSA and Azide free
Description	Rabbit monoclonal [EPR12296] to IDH1 - BSA and Azide free
Host species	Rabbit
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	<b>Suitable for:</b> IHC-P, WB, IP
Species reactivity	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Sheep, Cow, Orangutan 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HAP1, HepG2, and HeLa cell lysates. IHC-P: Human gastric cancer tissue. IP: HepG2 whole cell lysate. WB: Raji, HepG2 and Neuro-2a whole cell lysates. Rat kidney lysate.
General notes	<p>ab214803 is the carrier-free version of <a href="#">ab172964</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <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>

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.20 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR12296
<b>Isotype</b>	IgG

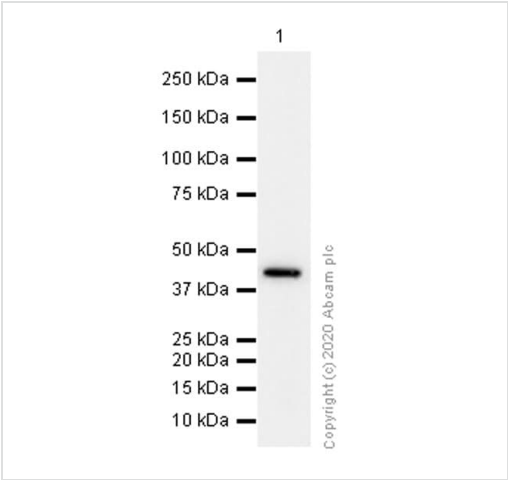
## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab214803 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
<b>WB</b>		Use at an assay dependent concentration. Predicted molecular weight: 47 kDa.
<b>IP</b>		Use at an assay dependent concentration.

## Target

<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the isocitrate and isopropylmalate dehydrogenases family.
<b>Post-translational modifications</b>	Acetylation at Lys-374 dramatically reduces catalytic activity.
<b>Cellular localization</b>	Cytoplasm. Peroxisome.



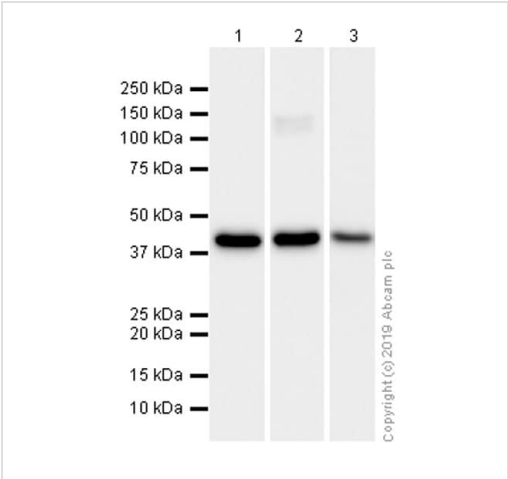
Western blot - Anti-IDH1 antibody [EPR12296] - BSA and Azide free (ab214803)

Anti-IDH1 antibody [EPR12296] ([ab172964](#)) at 1/1000 dilution (Purified) + Raji (Human Burkitt's lymphoma B lymphocyte) whole cell lysate

**Secondary**

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 47 kDa



Western blot - Anti-IDH1 antibody [EPR12296] - BSA and Azide free (ab214803)

**All lanes :** Anti-IDH1 antibody [EPR12296] ([ab172964](#)) at 1/1000 dilution (Purified)

**Lane 1 :** HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

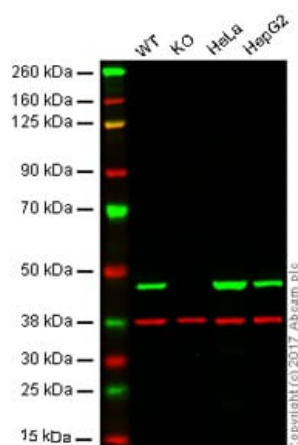
**Lane 2 :** Rat kidney lysate

**Lane 3 :** Neuro-2a (Mouse neuroblastoma neuroblast) whole cell lysate

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 47 kDa



Western blot - Anti-IDH1 antibody [EPR12296] - BSA and Azide free (ab214803)

This WB data was generated using the same anti-IDH1 antibody clone, EPR12296, in a different buffer formulation (cat# [ab172964](#)).

**Lane 1:** Wild-type HAP1 whole cell lysate (20 µg)

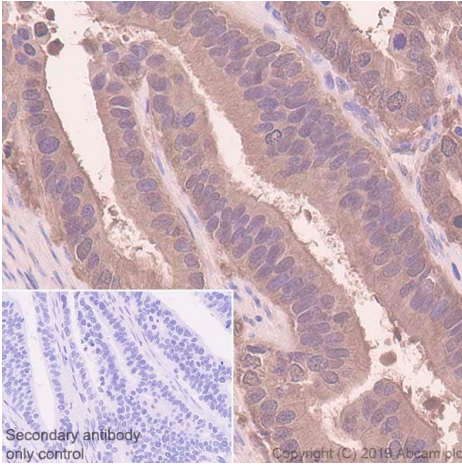
**Lane 2:** IDH1 knockout HAP1 whole cell lysate (20 µg)

**Lane 3:** HeLa whole cell lysate (20 µg)

**Lane 4:** HepG2 whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - [ab172964](#) observed at 46 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

[ab172964](#) was shown to specifically react with IDH1 in wild-type HAP1 cells. No band was observed when IDH1 knockout samples were used. Wild-type and IDH1 knockout samples were subjected to SDS-PAGE. Ab172964 and [ab8245](#) (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed 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 1/10,000 dilution for 1 hour at room temperature before imaging.

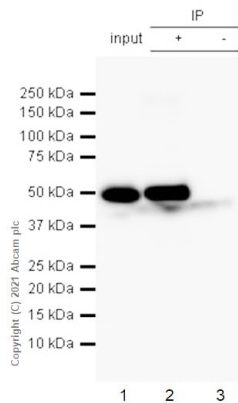


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IDH1 antibody  
[EPR12296] - BSA and Azide free (ab214803)

This data was developed using [ab172964](#), the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human gastric cancer tissue sections labeling IDH1 with purified [ab172964](#) at 1/200 dilution (0.60 µg/mL). Heat mediated antigen retrieval was performed using Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin.

ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control.



Immunoprecipitation - Anti-IDH1 antibody  
[EPR12296] - BSA and Azide free (ab214803)

This data was developed using [ab172964](#), the same antibody clone in a different buffer formulation.

Purified [ab172964](#) at 1/20 dilution (0.6µg) immunoprecipitating IDH1 in HepG2 whole cell lysate.

Lane 1 (input): HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate.

Lane 2 (+): [ab172964](#) + HepG2 whole cell lysate.

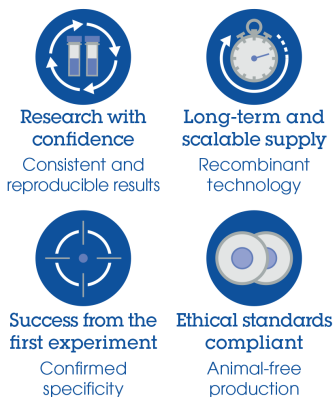
Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of [ab172964](#) in HepG2 whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

### Why choose a recombinant antibody?



Anti-IDH1 antibody [EPR12296] - BSA and Azide free (ab214803)

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

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