Product name: Anti-IDH2 (mutated R172 S) antibody [SMab-2]

Description: Mouse monoclonal [SMab-2] to IDH2 (mutated R172 S)

Host species: Mouse

Tested applications: Suitable for: WB, ICC/IF, ELISA

Species reactivity: Reacts with: Human

Immunogen: Synthetic peptide. This information is considered to be commercially sensitive.


General notes: This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.

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.

Properties

Form: Liquid


Storage buffer: Preservative: 0.01% Sodium azide
Constituents: PBS, 0.05% BSA, 40% Glycerol

Purity: Protein A purified

Clonality: Monoclonal

Clone number: SMab-2

Isotype: IgG1
**Light chain type**

* kappa

**Applications**

Our Abpromise guarantee covers the use of ab264056 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1.329 µg/ml. Predicted molecular weight: 50 kDa.</td>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 26.58 µg/ml.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent concentration. Use at 1250ng/ml.</td>
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**Target**

**Function**

Plays a role in intermediary metabolism and energy production. It may tightly associate or interact with the pyruvate dehydrogenase complex.

**Involvement in disease**

- D-2-hydroxyglutaric aciduria 2
- Glioma

Genetic variations are associated with cartilaginous tumors such as enchondroma or chondrosarcoma.

**Sequence similarities**

Belongs to the isocitrate and isopropylmalate dehydrogenases family.

**Post-translational modifications**

Acetylation at Lys-413 dramatically reduces catalytic activity. Deacetylated by SIRT3.

**Cellular localization**

Mitochondrion.

**Images**

**Western blot - Anti-IDH2 (mutated R172 S) antibody [SMab-2] (ab264056).**

The loading samples are E.coli extracts containing recombinant protein respectively.

ab264056 used at a 1/1000 dilution (1.329µg/ml), followed by Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) secondary antibody at a 1/10,000 dilution.

Blocking/Dilution buffer: 5% NFDM/TBST.

**Lane 1:** His-tagged human IDH1 (aa1-414) recombinant protein 10ng

**Lane 2:** His-tagged human IDH1 mutated R132H (aa1-414) recombinant protein 10ng
Lane 3: His-tagged human IDH1 mutated R132G (aa1-414) recombinant protein 10ng
Lane 4: His-tagged human IDH1 mutated R132L (aa1-414) recombinant protein 10ng
Lane 5: His-tagged human IDH1 mutated R132S (aa1-414) recombinant protein 10ng
Lane 6: His-tagged human IDH1 mutated R132V (aa1-414) recombinant protein 10ng
Lane 7: His-tagged human IDH1 mutated R132C (aa1-414) recombinant protein 10ng
Lane 8: His-tagged human IDH2 (aa40-452) recombinant protein 10ng
Lane 9: His-tagged human IDH2 mutated R172M (aa40-452) recombinant protein 10ng
Lane 10: His-tagged human IDH2 mutated R172S (aa40-452) recombinant protein 10ng
Lane 11: His-tagged human IDH2 mutated R172G (aa40-452) recombinant protein 10ng
Lane 12: His-tagged human IDH2 mutated R172W (aa40-452) recombinant protein 10ng
Lane 13: His-tagged human IDH2 mutated R172K (aa40-452) recombinant protein 10ng
Lane 14: His-tagged human IDH2 mutated R140Q (aa40-452) recombinant protein 10ng

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SW1353 (human chondrosarcoma cell line) cells labelling IDH2 (mutated R172 S) with ab264056 at 1/50 dilution (26.58µg/ml), followed by ab150113 Goat Anti-mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in SW1353 cells.

Negative control: HeLa (PMID: 25753205).

ab179504 Anti-beta IV Tubulin antibody was used to counterstain tubulin at 1/200 dilution, followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/1000 dilution (Red). The nuclear counterstain was DAPI (Blue).

Negative control 1: ab264056 at a 1/50 dilution (26.58µg/ml) followed by ab150080 at a 1/1000 dilution.

Negative control 2: ab179504 at 1/200 dilution followed by ab150113 at a 1/1000 dilution.
ELISA - Anti-IDH2 (mutated R172 S) antibody [SMab-2] (ab264056).

ab264056 used at 0-5000 ng/ml, followed by an Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Mouse IgG (H+L) secondary used at 1/1000 dilution.

Antigen concentration, 100 ng/ml.

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

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