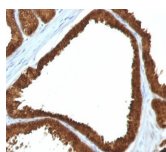


# IDH1 Monoclonal Mouse Antibody (IDH1/1152)



## Product Description

This antibody recognizes a 45 kDa protein, which is identified as isocitrate dehydrogenase (IDH1). It belongs to the isocitrate and isopropylmalate dehydrogenases family. IDH1 catalyzes the third step of the citric acid cycle, which involves the oxidative decarboxylation of isocitrate, forming alpha-ketoglutarate and CO<sub>2</sub> in a two-step reaction. The first step involves the oxidation of isocitrate to the intermediate oxalosuccinate, while the second step involves the production of alpha-ketoglutarate. During this process, either NADH or NADPH is produced along with CO<sub>2</sub>. Recently, an inactivating mutation of IDH1 has been implicated in glioblastoma. IDH1 appears to function as a tumor suppressor that, when mutationally inactivated, contributes to tumorigenesis in part through induction of the HIF-1 pathway.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 1152, Anti-IDH1 (IDH1/1152)**

## Product attributes

|                                       |  |
|---------------------------------------|--|
| Antibody number                       | #1152  |
| Antibody reactivity (target)          | IDH1   |
| Antibody type                         | Primary  |
| Host species                          | Mouse  |
| Clonality                             | Monoclonal   |
| Clone                                 | IDH1/1152  |
| Isotype                               | IgG1, kappa  |
| Molecular weight                      | 45-47 kDa  |
| Synonyms                              | Cytosolic NADP-isocitrate dehydrogenase; Epididymis luminal protein 216; Epididymis secretory protein LI 26; HEL-216; HEL-S-26; ICDH; IDCD; IDH1; IDP; IDPC; Isocitrate dehydrogenase 1 (NADP+) soluble; NADP dependent isocitrate dehydrogenase peroxisomal; NADP(+)-specific ICDH; Oxalosuccinate decarboxylase; PICD  |
| Human gene symbol                     | IDH1   |
| Entrez gene ID                        | 3417   |
| SwissProt                             | O75874   |
| Unigene                               | 593422   |
| Immunogen                             | Recombinant fragment (119 Amino acid residues around aa 280-420) of human IDH1 protein   |
| Antibody target cellular localization | Nucleus & cytoplasm  |
| Verified antibody applications        | IHC (FFPE) (verified)  |
| Species reactivity                    | Human  |
| Antibody application notes            | Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunofluorescence: 0.5-1 ug/mL. Immunohistology formalin-fixed 0.5-1 ug/mL. Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0 or 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Western blotting 0.5-1 ug/mL, Optimal dilution for a specific application should be determined by user |
| Positive control                      | HepG2, HeLa, HT29 or MCF7 cells. Breast, Colon or Prostate Carcinoma.  |
| Shipping condition                    | Room temperature   |
| Storage Conditions                    | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when stored as recommended  |
| Regulatory status                     | For research use only (RUO)  |
| Antibody/conjugate formulation        | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  |
| Antibody research areas               | Cancer, Metabolism   |
| Product origin                        | Product may contain either bovine serum albumin (BSA) from bovine serum ( <i>Bos taurus</i> ), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.   |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF®405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| BNC74             | CF®740             | 742/767    | 633-685    | 775/50                   | <a href="#">CF®740 Features</a>  |
| BNCB              | Biotin             | N/A        | N/A        | N/A                      |                                  |
| BNUB              | Purified           | N/A        | N/A        | N/A                      |                                  |
| BNUM              | Purified, BSA-free | N/A        | N/A        | N/A                      |                                  |

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