

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 CO2 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 CO2. 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 <u>CF® Dye Brochure</u> 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 <u>order@biotium.com</u> to inquire about stock status and lead times before placing your order.

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

Call us : <u>800-304-5357</u>

Email: techsupport@biotium.com

Product attributes

Product attributes			
Antibody number	#1152		
Antibody reactivity (target)	IDH1		
Antibody type	Primary		
Host species	Mouse		
Clonality	Monoclonal		
Clone	IDH1/1152		
Isotype	lgG1, kappa		
Molecular weight	45-47 kDa		
Synonyms	Cytosolic NADP-isocitrate dehydrogenase; Epididymis luminal protein 216; Epididymis secretory protein L1 26; HEL-216; HEL-S-26; ICDH; IDCD; IDH1; IDF; 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		
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Positive control	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		
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Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate	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/mlilon cells/0.1 mL, Western blotting 0.5-1 ug/ml, Optimal dilution for a specific application should be determined by user HepG2, HeLa, HT29 or MCF7 cells. Breast, Colon or Prostate Carcinoma. Room temperature Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C Guaranteed for at least 24 months from date of receipt when stored as recommended For research use only (RUO) Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA/0.05% azide, Umfled, BSA-free 11 mg/mL in PS/0.1% BSA/0.05% azide, Img/mL		

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