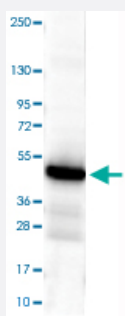


IDH1 monoclonal antibody, clone CL0219

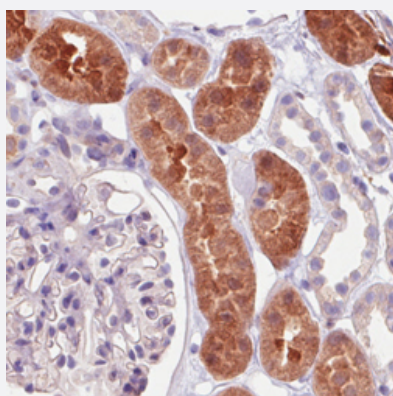
Catalog # MAB15566 Size 100 uL

Applications



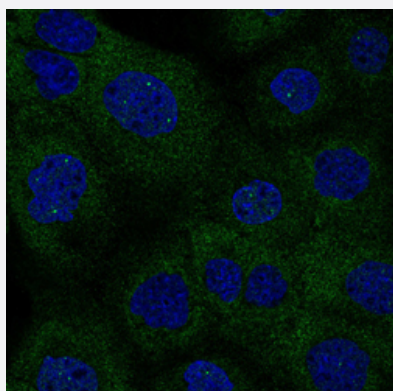
Western Blot (Cell lysate)

Western Blot analysis of RT-4 cell lysate with IDH1 monoclonal antibody, clone CL0219 (Cat # MAB15566).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of human kidney with IDH1 monoclonal antibody, clone CL0219 (Cat # MAB15566) shows strong positivity in a subset of renal tubules.



Immunofluorescence

Immunofluorescent staining of A-431 cells with IDH1 monoclonal antibody, clone CL0219 (Cat # MAB15566) (Green) shows specific staining in the cytosol and nuclear bodies. Microtubule and nuclear probes are visualized in red and blue, respectively (where available).

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant human IDH1.
Immunogen	Recombinant protein corresponding to human IDH1.
Epitope	This antibody binds to an epitope located within the peptide sequence IEDFAHSSSQMALSK as determined by overlapping synthetic peptides.
Sequence	FVVPGPGKVEITYTPSDGTQKVTVLVHNFEEGGGVAMGMYNQDKSIEDFAHSSSQMALSKGWPLY
Host	Mouse
Reactivity	Human
Form	Liquid
Purification	Protein A purification
Isotype	IgG2a
Recommend Usage	Immunofluorescence (1-4 ug/mL) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1:5000-1:10000) Western Blot (1:500-1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.2 (40% glycerol, 0.02% sodium azide).
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

Western Blot analysis of RT-4 cell lysate with IDH1 monoclonal antibody, clone CL0219 (Cat # MAB15566).

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of human kidney with IDH1 monoclonal antibody, clone CL0219 (Cat # MAB15566) shows strong positivity in a subset of renal tubules.

- Immunofluorescence

Immunofluorescent staining of A-431 cells with IDH1 monoclonal antibody, clone CL0219 (Cat # MAB15566) (Green) shows specific staining in the cytosol and nuclear bodies. Microtubule and nuclear probes are visualized in red and blue, respectively (where available).

Gene Info — IDH1

Entrez GeneID [3417](#)

Protein Accession# [O75874](#)

Gene Name IDH1

Gene Alias IDCDC, IDH, IDP, IDPC, PICD

Gene Description isocitrate dehydrogenase 1 (NADP+), soluble

Omim ID [147700](#)

Gene Ontology [Hyperlink](#)

Gene Summary

Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. [provided by RefSeq]

Other Designations NADP+-specific ICDH|NADP-dependent isocitrate dehydrogenase, cytosolic|NADP-dependent isocitrate dehydrogenase, peroxisomal|oxalosuccinate decarboxylase

Publication Reference

- [An Anaplastic Pleomorphic Xanthoastrocytoma With Periventricular Extension: An Autopsy Case Report and Review of the Literature.](#)

Yuki Matsumoto, Mikiko Kobayashi, Kunihiko Shingu, Ayako Tateishi, Maki Ohya, Kenji Sano, Tatsuya Negishi, Shohei Shigeto, Tatsuya Kobayashi, Yosuke Hara, Yukinari Kakizawa, Hiroyuki Kanno.

Neuropathology 2020 Oct; 40(5):507.

Application: IHC-P, Human, Human pleomorphic xanthoastrocytomas

Pathway

- [Biosynthesis of alkaloids derived from histidine and purine](#)

- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Citrate cycle \(TCA cycle\)](#)
- [Glutathione metabolism](#)
- [Metabolic pathways](#)
- [Reductive carboxylate cycle \(CO2 fixation\)](#)

Disease

- [Adenoma](#)
- [Astrocytoma](#)
- [Blast Crisis](#)
- [Brain Neoplasms](#)
- [Carcinoma](#)
- [Chronic Disease](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hematologic Diseases](#)

- [HIV Infections](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Melanoma](#)
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- [Myelodysplastic Syndromes](#)
- [Myeloproliferative Disorders](#)
- [Neoplasm Metastasis](#)
- [Nervous System Neoplasms](#)
- [Neuroectodermal Tumors](#)
- [Oligodendroglioma](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Polycythemia Vera](#)
- [Primary Myelofibrosis](#)
- [Recurrence](#)
- [Skin Neoplasms](#)
- [Supratentorial Neoplasms](#)
- [Thrombocythemia](#)
- [Thyroid Neoplasms](#)