

IDH2 (BA-19): sc-100594

BACKGROUND

IDH2 (isocitrate dehydrogenase 2 (NADP⁺), mitochondrial), also designated NADP⁺-specific ICDH; isocitrate dehydrogenase, mitochondrial; and oxalosuccinate decarboxylase, is a 452 amino acid enzyme encoded by the human gene IDH2. IDH2 belongs to the isocitrate and isopropylmalate dehydrogenases family and contains two nucleotide binding regions. IDH2 is involved in the reduction of NADP⁺ to NADPH and maintains the supply of glutathione (GSH) in mitochondria. It is believed to play a role in intermediary metabolism and energy production. IDH2 also tightly associates with the pyruvate dehydrogenase complex. IDH2 is found in the mitochondrion as a homodimer and can bind one magnesium or manganese ion per subunit.

REFERENCES

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2. Champion, M.J., et al. 1979. Assignment of cytoplasmic α -mannosidase (MANA) and confirmation of mitochondrial isocitrate dehydrogenase (IDHM) to the q11 leads to qter region of chromosome 15 in man. *Cytogenet. Cell Genet.* 22: 498-502.
3. Luo, H., et al. 1996. Expression of human mitochondrial NADP-dependent isocitrate dehydrogenase during lymphocyte activation. *J. Cell. Biochem.* 60: 495-507.
4. Huh, T.L., et al 1997. Assignment of the human mitochondrial NAD⁺-specific isocitrate dehydrogenase α subunit (IDH3A) gene to 15q25.1-15q25.2 by *in situ* hybridization. *Genomics* 32: 295-296.
5. Oh, I.U., et al. 1997. Assignment of the human mitochondrial NAD⁺-specific isocitrate dehydrogenase (IDH2) gene to 15q26.1 by *in situ* hybridization. *Genomics* 38: 104-106.
6. Lancien, M., et al. 1999. Molecular characterization of higher plant NAD-dependent isocitrate dehydrogenase: evidence for a heteromeric structure by the complementation of yeast mutants. *Plant J.* 16: 325-333.
7. Johnson, C.H., et al. 1999. Isolation of a histoplasma capsulatum cDNA that complements a mitochondrial NAD⁺-isocitrate dehydrogenase subunit I-deficient mutant of *Saccharomyces cerevisiae*. *Yeast* 15: 799-804.

CHROMOSOMAL LOCATION

Genetic locus: IDH2 (human) mapping to 15q26.1.

SOURCE

IDH2 (BA-19) is a mouse monoclonal antibody raised against recombinant IDH2 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

IDH2 (BA-19) is recommended for detection of IDH2 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

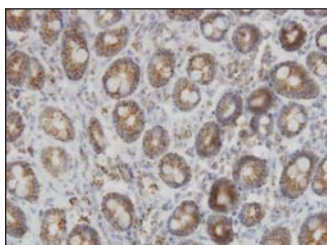
Suitable for use as control antibody for IDH2 siRNA (h): sc-62487, IDH2 shRNA Plasmid (h): sc-62487-SH and IDH2 shRNA (h) Lentiviral Particles: sc-62487-V.

Molecular Weight of IDH2: 51 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

DATA



IDH2 (BA-19): sc-100594. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tissue showing cytoplasmic localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.