

ISOC2 (M-16): sc-168209

BACKGROUND

ISOC2 (isochorismatase domain-containing protein 2) is a 205 amino acid protein belonging to the isochorismatase family. Isochorismatase is an enzyme that catalyzes the chemical reaction of isochorismate and water to 2,3-dihydroxy-2,3-dihydrobenzoate and pyruvate. Localized to mitochondrion and cytoplasm, ISOC2 interacts with CDKN2A and localizes to the nucleus in the presence of it. ISOC2 is ubiquitously expressed, with highest levels found in uterus, stomach and urinary tract system. Over expressed ISOC2 inhibits the expression of CDKN2A, suggesting that this novel gene may play a role during tumor development by interacting with CDKN2A. Three isoforms are produced by alternative splicing events.

REFERENCES

1. Young, I.G., et al. 1969. Regulation of the enzymes involved in the biosynthesis of 2,3-dihydroxybenzoic acid in *Aerobacter aerogenes* and *Escherichia coli*. *Biochim. Biophys. Acta* 177: 401-411.
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3. Jacobs, J.J., et al. 2004. Significant role for p16INK4a in p53-independent telomere-directed senescence. *Curr. Biol.* 14: 2302-2308.
4. Ishikawa, A., et al. 2004. Frequent p16ink4a inactivation is an early and frequent event of intraductal papillary neoplasm of the liver arising in hepatolithiasis. *Hum. Pathol.* 35: 1505-1514.
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CHROMOSOMAL LOCATION

Genetic locus: Isoc2a (mouse) mapping to 7 A1.

SOURCE

ISOC2 (M-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ISOC2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168209 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ISOC2 (M-16) is recommended for detection of ISOC2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with ISOC1 or ISOC2b.

Suitable for use as control antibody for ISOC2 siRNA (m): sc-146301, ISOC2 shRNA Plasmid (m): sc-146301-SH and ISOC2 shRNA (m) Lentiviral Particles: sc-146301-V.

Molecular Weight of ISOC2 isoform 1: 22 kDa.

Molecular Weight of ISOC2 isoform 2: 24 kDa.

Molecular Weight of ISOC2 isoform 3: 15 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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