

IDH3A (G-17): sc-55671

BACKGROUND

IDH3A (isocitrate dehydrogenase [NAD] subunit a (mitochondrial), NAD⁺-specific ICDH) is a 366 amino acid protein encoded by the human gene IDH3A. IDH3A belongs to the isocitrate and isopropylmalate dehydrogenases family and can bind one magnesium or manganese ion per subunit. It is usually found in the mitochondrion as a heterooligomer of subunits α , β , and γ in the apparent ratio of 2:1:1. Human NAD-dependent isocitrate dehydrogenase (IDH) is allosterically activated by ADP by lowering the K_m for isocitrate. NAD-dependent isocitrate dehydrogenase is a tricarboxylic acid cycle enzyme that produces 2-oxoglutarate, an organic acid required by the glutamine synthetase/glutamate synthase cycle to assimilate ammonium.

CHROMOSOMAL LOCATION

Genetic locus: IDH3A (human) mapping to 15q25.1; Idh3a (mouse) mapping to 9 A5.3.

SOURCE

IDH3A (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IDH3A of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-55671 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

IDH3A (G-17) is recommended for detection of IDH3A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

IDH3A (G-17) is also recommended for detection of IDH3A in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for IDH3A siRNA (h): sc-62489, IDH3A siRNA (m): sc-62490, IDH3A shRNA Plasmid (h): sc-62489-SH, IDH3A shRNA Plasmid (m): sc-62490-SH, IDH3A shRNA (h) Lentiviral Particles: sc-62489-V and IDH3A shRNA (m) Lentiviral Particles: sc-62490-V.

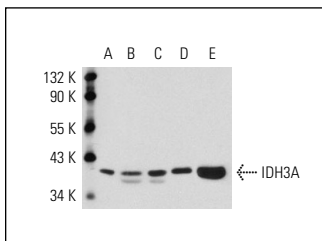
Molecular Weight of IDH3A: 40 kDa.

Positive Controls: IDH3A (m2): 293T Lysate, C2C12 whole cell lysate: sc-364188 or rat skeletal muscle extract: sc-364810.

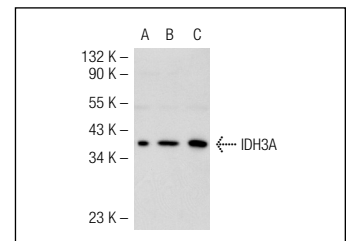
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



IDH3A (G-17): sc-55671. Western blot analysis of IDH3A expression in Jurkat (A), A-673 (B), HeLa (C) and C2C12 (D) whole cell lysates and rat skeletal muscle tissue extract (E).



IDH3A (G-17): sc-55671. Western blot analysis of IDH3A expression in non-transfected 293T: sc-117752 (A), mouse IDH3A transfected 293T: sc-120942 (B) and Jurkat (C) whole cell lysates.

PROTOCOLS

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

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Try **IDH3A (A-10): sc-398021** or **IDH3A (B-7): sc-514358**, our highly recommended monoclonal alternatives to IDH3A (G-17).