SANTA CRUZ BIOTECHNOLOGY, INC.

Aldolase A (C-16): sc-12061

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Fructose 1,6-bisphosphate Aldolase catalyses the reversible condensation of glycerone-P and glyceraldehyde 3-phosphate into fructose 1,6-bisphosphate. Fructose 1,6-bisphosphate Aldolase exists as three forms, the muscle-specific Aldolase A, the liver-specific Aldolase B, and the brain-specific Aldolase C. Aldolase A, B, and C arose from a common ancestral gene, from which Aldolase B first diverged. Aldolase A is one of the most highly conserved enzymes known, with only about 2% of the residues changing per 100 million years. Aldolase B is regulated by the hormones Insulin and glucagon and has been implicated in hereditary fructose intolerance disease. Aldolase C is a polypeptide that is exclusively expressed in Purkinje cells. Aldolase C-positive Purkinje cells are organized in the cerebellum as stripes or bands that run from anterior to posterior across the cerebellum and alternate with bands of Aldolase C-negative Purkinje cells.

CHROMOSOMAL LOCATION

Genetic locus: ALDOA (human) mapping to 16p11.2; Aldoa (mouse) mapping to 7 F3.

SOURCE

Aldolase A (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Aldolase A of human 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-12061 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Aldolase A (C-16) is recommended for detection of aldolase A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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). Aldolase A (C-16) is also recommended for detection of aldolase A in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Aldolase A siRNA (h): sc-29664, Aldolase A siRNA (m): sc-29665, Aldolase A shRNA Plasmid (h): sc-29664-SH, Aldolase A shRNA Plasmid (m): sc-29665-SH, Aldolase A shRNA (h) Lentiviral Particles: sc-29664-V and Aldolase A shRNA (m) Lentiviral Particles: sc-29665-V.

Molecular Weight of Aldolase A: 40 kDa.

Positive Controls: Aldolase A (h4): 293T Lysate: sc-113098, Caki-1 cell lysate: sc-2224 or A-673 cell lysate: sc-2414.

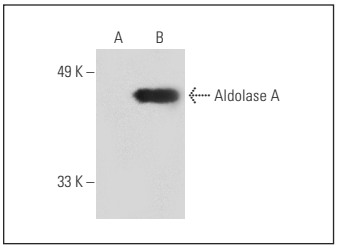
RESEARCH USE

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

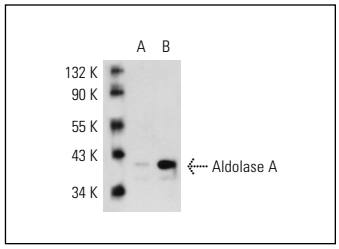
STORAGE

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

DATA



Aldolase A (C-16): sc-12061. Western blot analysis of Aldolase A expression in non-transfected: sc-117752 (**A**) and human Aldolase A transfected: sc-113098 (**B**) 293T whole cell lysates.



Aldolase A (C-16): sc-12061. Western blot analysis of Aldolase A expression in non-transfected: sc-110760 (**A**) and human Aldolase A transfected: sc-111128 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. He, H., et al. 2003. Post-translational modifications of three members of the human MAP1LC3 family and detection of a novel type of modification for MAP1LC3B. J. Biol. Chem. 278: 29278-29287.
2. Tomonaga, T., et al. 2004. Identification of altered protein expression and post-translational modifications in primary colorectal cancer by using agarose two-dimensional gel electrophoresis. Clin. Cancer Res. 10: 2007-2014.
3. Fetzer, C., et al. 2005. The carboxy-terminal sequence of the pestivirus glycoprotein E(rns) represents an unusual type of membrane anchor. J. Virol. 79: 11901-11913.
4. Dong, S., et al. 2005. Histology-based expression profiling yields novel prognostic markers in human glioblastoma. J. Neuropathol. Exp. Neurol. 64: 948-955.
5. Elmén, J., et al. 2007. Antagonism of microRNA-122 in mice by systemically administered LNA-antimiR leads to up-regulation of a large set of predicted target mRNAs in the liver. Nucleic Acids Res. 36: 1153-1162.
6. Hong, M., et al. 2011. Cardiac ATP-sensitive K^+ channel associates with the glycolytic enzyme complex. FASEB J. 25: 2456-2467.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **Aldolase A (C-10): sc-390733** or **Aldolase A (A-2): sc-377058**, our highly recommended monoclonal alternatives to Aldolase A (C-16).