

# Aldolase B (19): sc-130303

## BACKGROUND

Fructose 1,6-bisphosphate aldolase catalyses the reversible condensation of glyceraldehyde 3-phosphate and dihydroxyacetone 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.

## REFERENCES

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- Dehnes, Y., et al. 1998. The glutamate transporter EAAT4 in rat cerebellar Purkinje cells: a glutamate-gated chloride channel concentrated near the synapse in parts of the dendritic membrane facing astroglia. *J. Neurosci.* 18: 3606-3619.
- Eisenman, L.M., et al. 1998. Regionalization defects in the weaver mouse cerebellum. *J. Comp. Neurol.* 394: 431-444.
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## CHROMOSOMAL LOCATION

Genetic locus: ALDOB (human) mapping to 9q31.1; Aldob (mouse) mapping to 4 B1.

## SOURCE

Aldolase B (19) is a mouse monoclonal antibody raised against recombinant Aldolase B of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Aldolase B (19) is recommended for detection of Aldolase B 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Aldolase B siRNA (h): sc-29666, Aldolase B siRNA (m): sc-29667, Aldolase B shRNA Plasmid (h): sc-29666-SH, Aldolase B shRNA Plasmid (m): sc-29667-SH, Aldolase B shRNA (h) Lentiviral Particles: sc-29666-V and Aldolase B shRNA (m) Lentiviral Particles: sc-29667-V.

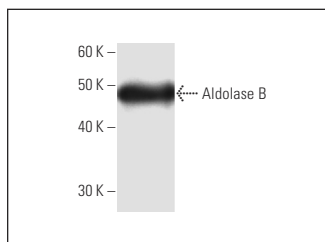
Molecular Weight of Aldolase B: 40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

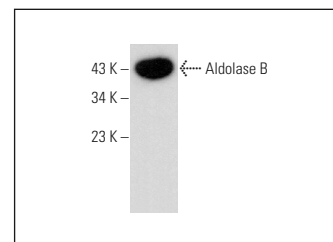
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



Aldolase B (19): sc-130303. Western blot analysis of human recombinant Aldolase B.



Aldolase B (19): sc-130303. Western blot analysis of Aldolase B expression in Hep G2 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Fan, K., et al. 2020. MUC16 C-terminal binding with ALDOC disrupts the ability of ALDOC to sense glucose and promotes gallbladder carcinoma growth. *Exp. Cell Res.* E-published.

## 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.