

# Aldolase B (D-18): sc-12063

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Aldolase B (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Aldolase B 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-12063 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Aldolase B (D-18) 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)], 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).

Aldolase B (D-18) is also recommended for detection of Aldolase B in additional species, including porcine.

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.

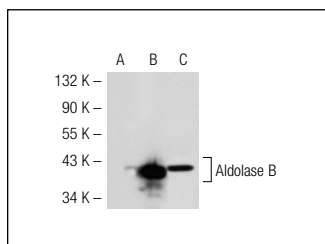
Molecular Weight of Aldolase B: 40 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, Sol8 cell lysate: sc-2249 or Aldolase B (m): 293T Lysate: sc-124946.

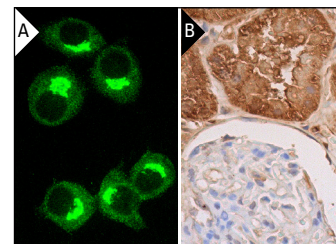
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Aldolase B (D-18): sc-12063. Western blot analysis of Aldolase B expression in non-transfected 293T: sc-117752 (A), mouse Aldolase B transfected 293T: sc-124946 (B) and KNRK (C) whole cell lysates.



Aldolase B (D-18): sc-12063. Immunofluorescence staining of methanol-fixed KNRK cells showing localized cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

## SELECT PRODUCT CITATIONS

1. Bax, D.A., et al. 2007. High-grade dysplasia in Barrett's esophagus is associated with increased expression of calgranulin A and B. *Scand. J. Gastroenterol.* 42: 902-910.
2. Merkulova, M., et al. 2011. Aldolase directly interacts with ARNO and modulates cell morphology and acidic vesicle distribution. *Am. J. Physiol., Cell Physiol.* 300: C1442-C1455.

## 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.



Try **Aldolase B (C-11): sc-393278** or **Aldolase B (19): sc-130303**, our highly recommended monoclonal alternatives to Aldolase B (D-18).