

Aldolase C (H-55): sc-30084

BACKGROUND

Fructose 1,6-bisphosphate Aldolase catalyses the reversible condensation of 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 36 kDa 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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3. Caffé, A.R., et al. 1994. Distribution of Purkinje cell-specific zebrin-II/ Aldolase C immunoreactivity in the mouse, rat, rabbit, and human retina. *J. Comp. Neurol.* 348: 291-297.
4. Hawkes, R., et al. 1995. Aldolase C/ zebrin II and the regionalization of the cerebellum. *J. Mol. Neurosci.* 6: 147-158.
5. Lannoo, M.J., et al. 1997. A search for primitive Purkinje cells: zebrin II expression in sea lampreys (*Petromyzon marinus*). *Neurosci. Lett.* 237: 53-55.
6. Walther, E.U., et al. 1998. Genomic sequences of Aldolase C (zebrin II) direct lacZ expression exclusively in non-neuronal cells of transgenic mice. *Proc. Natl. Acad. Sci. USA* 95: 2615-2620.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: ALDOC (human) mapping to 17q11.2; Aldoc (mouse) mapping to 11 B5.

SOURCE

Aldolase C (H-55) is a rabbit polyclonal antibody raised against amino acids 310-364 mapping at the C-terminus of Aldolase C 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.

APPLICATIONS

Aldolase C (H-55) is recommended for detection of Aldolase C 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).

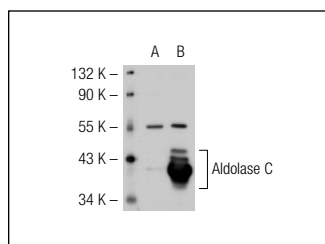
Aldolase C (H-55) is also recommended for detection of Aldolase C in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Aldolase C siRNA (h): sc-29668, Aldolase C siRNA (m2): sc-270351, Aldolase C shRNA Plasmid (h): sc-29668-SH, Aldolase C shRNA Plasmid (m2): sc-270351-SH, Aldolase C shRNA (h) Lentiviral Particles: sc-29668-V and Aldolase C shRNA (m2) Lentiviral Particles: sc-270351-V.

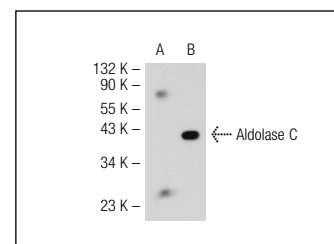
Molecular Weight of Aldolase C: 40 kDa.

Positive Controls: Aldolase C (h): 293T Lysate: sc-112417, Aldolase C (m): 293T Lysate: sc-124961 or mouse brain extract: sc-2253.

DATA



Aldolase C (H-55): sc-30084. Western blot analysis of Aldolase C expression in non-transfected: sc-117752 (A) and human Aldolase C transfected: sc-112417 (B) 293T whole cell lysates.



Aldolase C (H-55): sc-30084. Western blot analysis of Aldolase C expression in non-transfected: sc-117752 (A) and mouse Aldolase C transfected: sc-124961 (B) 293T whole cell lysates.

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.

PROTOCOLS

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



Try **Aldolase C (H-11): sc-271593** or **Aldolase C (E-5): sc-374141**, our highly recommended monoclonal alternatives to Aldolase C (H-55).