Anti-Aldolase A/B/C Antibody [PSH01-81]

HA721733

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Cynomolgus monkey, Pig
Applications:	WB, IHC-P, IHC-Fr, IF-Tissue, IF-Cell
Molecular Wt:	Predicted band size: 40 kDa
Clone number:	PSH01-81

Description: ALDOC is a member of the class I fructose-biphosphate aldolase gene family. Expressed specifically in the hippocampus and Purkinje cells of the brain, Aldolase C is a glycolytic enzyme that catalyzes the reversible aldol cleavage of fructose-1,6-biphosphate and fructose 1-phosphate to dihydroxyacetone phosphate and either glyceraldehyde-3-phosphate or glyceraldehyde, respectively.

Immunogen: Synthetic peptide within Human Aldolase C aa 50-100.

Positive control: U-87 MG cell lysate, RAW264.7 cell lysate, C6 cell lysate, human brain tissue lysate, mouse brain tissue lysate, mouse pancreas tissue lysate, rat brain tissue lysate, rat pancreas tissue lysate, U-87 MG, mouse brain tissue, rat brain tissue.

Subcellular location: cytoskeleton, cytosol, extracellular exosome, extracellular region

Database links: SwissProt: P09972 Human | P05063 Mouse | P09117 Rat

Recommended Dilutions:

WB	1:2,000-1:5,000
IHC-P	1:20,000
IHC-Fr	1:1,000
IF-Tissue	1:1,000
IF-Cell	1:100

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

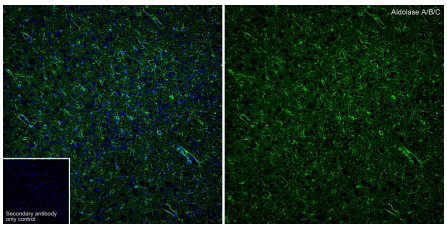

Fig1: Application: IHC-Fr

Species: Mouse

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1:1,000

Antigen retrieval: Not required

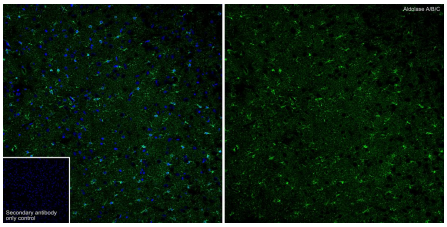

Fig2: Application: IHC-Fr

Species: Rat

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1:1,000

Antigen retrieval: Not required

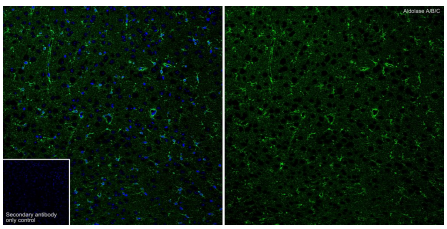

Fig3: Application: IF-tissue

Species: Mouse

Site: Cerebral cortex

Sample: Paraffin-embedded section

Antibody concentration: 1:1,000

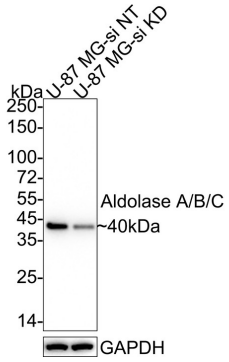

Fig4: Western blot analysis of Aldolase A/B/C on different lysates with Rabbit anti-Aldolase A/B/C antibody (HA721733) at 1/5,000 dilution.

Lane 1: U-87 MG-si NT cell lysate (10 µg/Lane)
Lane 2: U-87 MG-si Aldolase A/B/C cell lysate (10 µg/Lane)

Predicted band size: 40 kDa
Observed band size: 40 kDa

Exposure time: 4 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721733) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

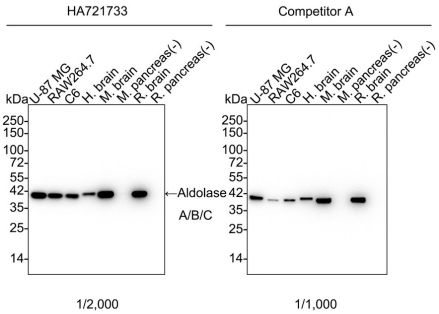

Fig5: Western blot analysis of Aldolase A/B/C on different lysates with Rabbit anti-Aldolase A/B/C antibody (HA721733) at 1/2,000 dilution and competitor's antibody at 1/1,000 dilution.

Lane 1: U-87 MG cell lysate
Lane 2: RAW264.7 cell lysate
Lane 3: C6 cell lysate
Lane 4: Human brain tissue lysate
Lane 5: Mouse brain tissue lysate
Lane 6: Mouse pancreas tissue lysate (negative)
Lane 7: Rat brain tissue lysate
Lane 8: Rat pancreas tissue lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 40 kDa
Observed band size: 40 kDa

Exposure time: 19 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721733) at 1/2,000 dilution and competitor's antibody at 1/1,000 dilution were used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

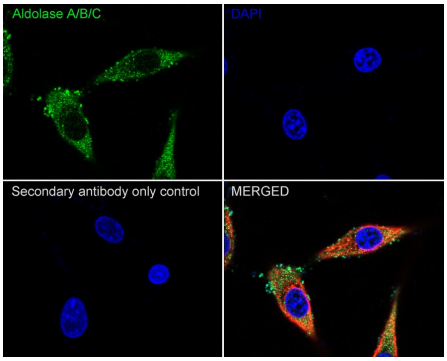

Fig6: Immunocytochemistry analysis of U-87 MG cells labeling Aldolase A/B/C with Rabbit anti-Aldolase A/B/C antibody (HA721733) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Aldolase A/B/C antibody (HA721733) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

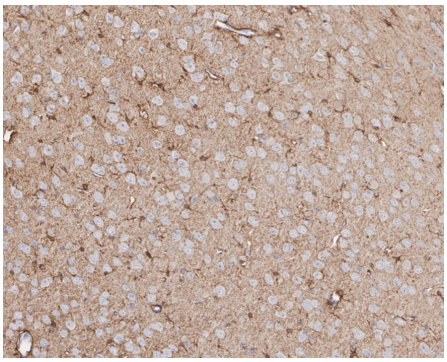

Fig7: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Aldolase A/B/C antibody (HA721733) at 1/20,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721733) at 1/20,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

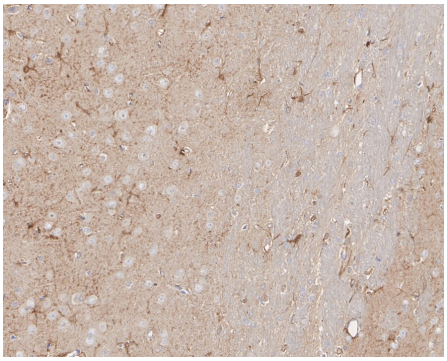

Fig8: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-Aldolase A/B/C antibody (HA721733) at 1/20,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721733) at 1/20,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Chen L, Zeng Y, Ren B, et al. ALDOC regulated the biological function and immune infiltration of gastric cancer cells. Int J Biochem Cell Biol. 2023 May; 158:106407.
2. Fan K, Wang J, Sun W, et al. MUC16 C-terminal binding with ALDOC disrupts the ability of ALDOC to sense glucose and promotes gallbladder carcinoma growth. Exp Cell Res. 2020 Sep 1;394(1):112118.