

Mouse anti-Human Aldolase/ALDOA Monoclonal Antibody | anti-ALDOA antibody

Anti-Aldolase/ALDOA Antibody (monoclonal, 6H8)

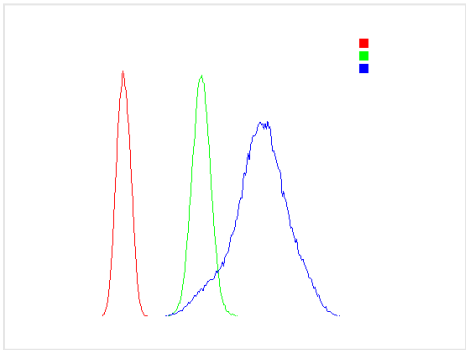
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19385	Mouse	Human	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

Aldolase/ALDOA; Monoclonal Antibody; Anti-Aldolase/ALDOA Antibody (monoclonal; 6H8); Fructose-bisphosphate aldolase A; Lung cancer antigen NY-LU-1; Muscle-type aldolase; ALDOA; ALDA; aldolase; fructose-bisphosphate A; anti-ALDOA antibody

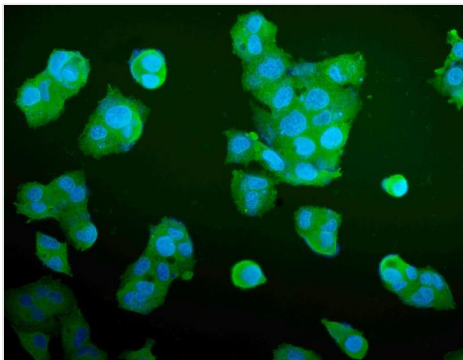
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	6H8
Specificity	Mouse IgG monoclonal antibody for Aldolase/ALDOA detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Applicable Applications for anti-ALDOA antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	WB: 0.25-0.5ug/ml Human IHC-P: 2-5ug/ml Human ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x10 ⁶ cells Human
Immunogen	E Coli-derived human Aldolase/ALDOA recombinant protein (Position: E50-Y364).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



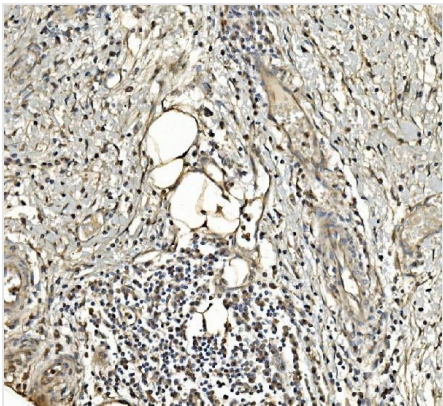
FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of SiHa cells using anti- Aldolase/ALDOA antibody (AAA19385).Overlay histogram showing SiHa cells stained with AAA19385 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti- Aldolase/ALDOA Antibody (AAA19385, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



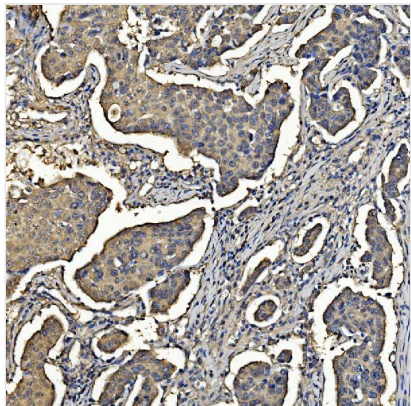
IF (Immunofluorescence)

Figure 5. IF analysis of Aldolase/ALDOA using anti- Aldolase/ALDOA antibody (AAA19385).Aldolase/ALDOA was detected in immunocytochemical section of HEPG2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL mouse anti- Aldolase/ALDOA Antibody (AAA19385) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



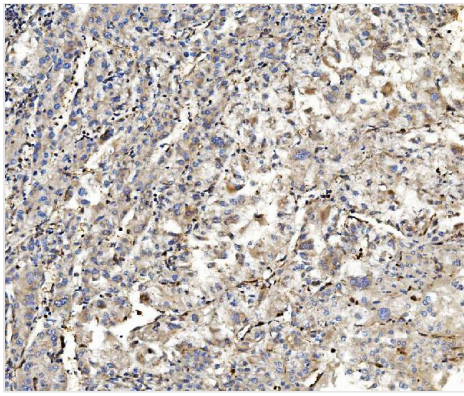
IHC (Immunohistochemistry)

Figure 4. IHC analysis of Aldolase/ALDOA using anti-Aldolase/ALDOA antibody (AAA19385).Aldolase/ALDOA was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Aldolase/ALDOA Antibody (AAA19385) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



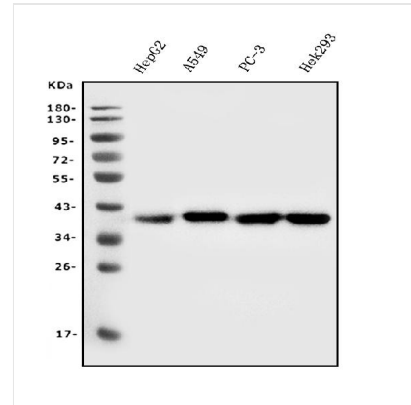
IHC (Immunohistochemistry)

Figure 3. IHC analysis of Aldolase/ALDOA using anti-Aldolase/ALDOA antibody (AAA19385).Aldolase/ALDOA was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Aldolase/ALDOA Antibody (AAA19385) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Aldolase/ALDOA using anti-Aldolase/ALDOA antibody (AAA19385). Aldolase/ALDOA was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml mouse anti-Aldolase/ALDOA Antibody (AAA19385) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



WB (Western Blot)

Figure 1. Western blot analysis of Aldolase/ALDOA using anti-Aldolase/ALDOA antibody (AAA19385). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50µg of sample under reducing conditions. Lane 1: human HEPG2 whole cell lysates. Lane 2: human A549 whole cell lysates. Lane 3: human PC-3 whole cell lysates. Lane 4: human Hek293 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Aldolase/ALDOA antigen affinity purified monoclonal antibody (Catalog # AAA19385) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system). A specific band was detected for Aldolase/ALDOA at approximately 39KD. The expected band size for Aldolase/ALDOA is at 39KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ALDOA antibody	Aldolase A (ALDOA, or ALDA), also known as fructose-bisphosphate aldolase, is an enzyme that in humans is encoded by the ALDOA gene on chromosome 16. This gene encodes a member of the class I fructose-bisphosphate aldolase protein family. The encoded protein is a glycolytic enzyme that catalyzes the reversible conversion of fructose-1,6-bisphosphate to glyceraldehyde 3-phosphate and dihydroxyacetone phosphate. Three aldolase isozymes (A, B, and C), encoded by three different genes, are differentially expressed during development. Mutations in this gene have been associated with Glycogen Storage Disease XII, an autosomal recessive disorder associated with hemolytic anemia. Disruption of this gene also plays a role in the progression of multiple types of cancers. Related pseudogenes have been identified on chromosomes 3 and 10.
References	1. Du, S; Guan, Z; Hao, L; Song, Y; Wang, L; Gong, L; Liu, L; Qi, X; Hou, Z; Shao, S (2014). "Fructose-bisphosphate aldolase a is a potential metastasis-associated marker of lung squamous cell carcinoma and promotes lung cell tumorigenesis and migration". PLOS ONE. 9 (1): e85804. 2. Yao, DC; Tolani, DR; Murray, MF; Harris, DJ; Darras, BT; Geva, A; Neufeld, EJ (15 March 2004). "Hemolytic anemia and severe rhabdomyolysis caused by compound heterozygous mutations of the gene for erythrocyte/muscle isozyme of aldolase, ALDOA(Arg303X/Cys338Tyr)". Blood. 103 (6): 2401-3. 3. St-Jean, M; Izard, T; Sygusch, J (11 May 2007). "A hydrophobic pocket in the active site of glycolytic aldolase mediates interactions with Wiskott-Aldrich syndrome protein". The Journal of Biological Chemistry. 282 (19): 14309-15.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557305
NCBI GeneID	226
NCBI Accession #	NP_000025.1
NCBI GenBank Nucleotide #	NM_000034.3
UniProt Accession #	P04075; Q6FH76; Q6FI10; Q96B15; Q9BWD9; Q9UCN2; B4DXI7
Molecular Weight	39,420 Da
NCBI Official Full Name	fructose-bisphosphate aldolase A isoform 1

NCBI Official Synonym Full Names	aldolase A, fructose-bisphosphate
NCBI Official Symbol	ALDOA
NCBI Official Synonym Symbols	ALDA; GSD12
NCBI Protein Information	fructose-bisphosphate aldolase A; muscle-type aldolase; lung cancer antigen NY-LU-1; fructose-1,6-bisphosphate triosephosphate-lyase
UniProt Protein Name	Fructose-bisphosphate aldolase A
UniProt Gene Name	ALDOA
UniProt Synonym Gene Names	ALDA
UniProt Entry Name	ALDOA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/aldolase-aldoa-antibody-clone-6h8-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/19385>