10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ALDOA Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2726b

Product Information

Application	WB, IHC-P, E
Primary Accession	P04075
Other Accession	P00883
Reactivity	Human, Rat, Mouse
Predicted	Rabbit, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14945
Calculated MW	39420
Antigen Region	303-331

Additional Information

Gene ID	226
Other Names	Fructose-bisphosphate aldolase A, Lung cancer antigen NY-LU-1, Muscle-type aldolase, ALDOA, ALDA
Target/Specificity	This ALDOA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 303-331 amino acids from the C-terminal region of human ALDOA.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ALDOA Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ALDOA (HGNC:414)
Synonyms	ALDA

Function	Catalyzes the reversible conversion of beta-D-fructose 1,6- bisphosphate (FBP) into two triose phosphate and plays a key role in glycolysis and gluconeogenesis (PubMed:14766013). In addition, also functions as a scaffolding protein (By similarity). In response to glucose deprivation, FBP dissociates from aldolase and acts as an adapter that promotes AMP-activated protein kinase (AMPK) activity: mechanistically, associates with transient receptor potential channels TrpV (TRPV1-TRPV4), promoting inhibition of the V-ATPase complex on lysosomes and AMPK activation via the AXIN1-STK11/LKB1 axis (By similarity).
Cellular Location	Cytoplasm, myofibril, sarcomere, I band {ECO:0000250|UniProtKB:P00883}. Cytoplasm, myofibril, sarcomere, M line {ECO:0000250|UniProtKB:P00883}. Note=In skeletal muscle, accumulates around the M line and within the I band, colocalizing with FBP2 on both sides of the Z line in the absence of Ca(2+) {ECO:0000250|UniProtKB:P00883}

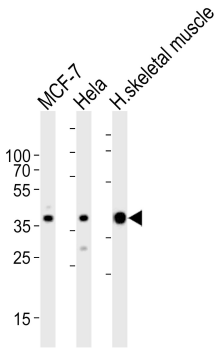
Background

Aldolase A (fructose-bisphosphate aldolase) 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. Aldolase A is found in the developing embryo and is produced in even greater amounts in adult muscle. Aldolase A expression is repressed in adult liver, kidney and intestine and similar to aldolase C levels in brain and other nervous tissue. Aldolase A deficiency has been associated with myopathy and hemolytic anemia.

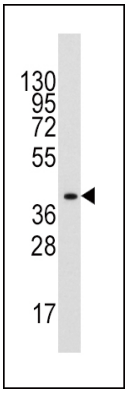
References

Gizak,A., Proteins 72 (1), 209-216 (2008) Lu,J., Biochem. Biophys. Res. Commun. 369 (3), 948-952 (2008) Valis,K., Mol. Cell. Biochem. 311 (1-2), 225-231 (2008)

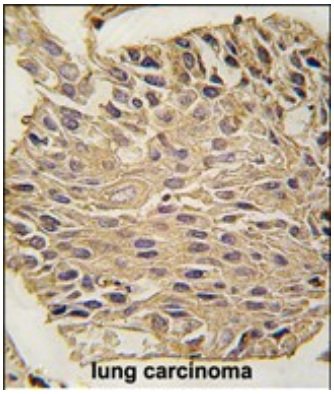
Images



Western blot analysis of lysates from MCF-7, Hela cell line and human skeletal muscle tissue lysate (from left to right), using ALDOA Antibody (C-term)(Cat. #AP2726b). AP2726b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot analysis of anti-ALDOA Antibody (C-term) (Cat.#AP2726b) in mouse liver tissue lysates (35ug/lane). ALDOA(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with ALDOA antibody (C-term) (Cat.#AP2726b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.