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Aldolase (ALDOA) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2726a

Product Information

Application	IHC-P, IF, WB, E
Primary Accession	P04075
Other Accession	P05065, P00883, P05064
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Rabbit, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14944
Calculated MW	39420
Antigen Region	66-95

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 Aldolase (ALDOA) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 66-95 amino acids from the N-terminal region of human Aldolase (ALDOA).
Dilution	IHC-P~~1:100~500 IF~~1:10~50 WB~~1:1000 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	Aldolase (ALDOA) Antibody (N-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}

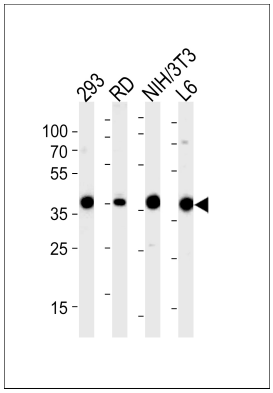
Background

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

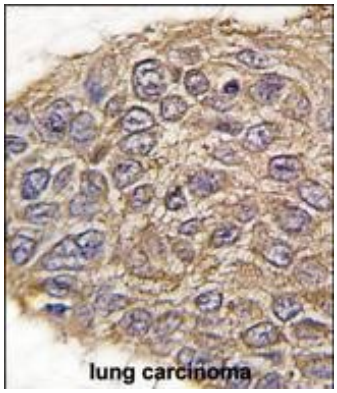
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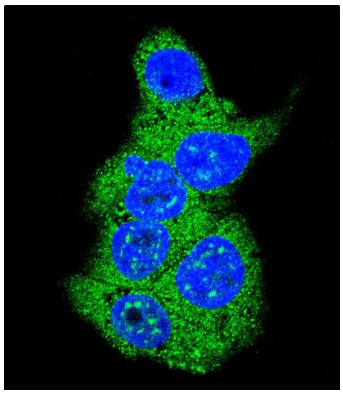
Images



Western blot analysis of lysates from 293,RD,mouse NIH/3T3,rat L6 cell line (from left to right),using ALDOA Antibody (N-term)(Cat. #AP2726a).AP2726a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug per lane.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with ALDOA antibody (N-term) (Cat.#AP2726a), 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.





Confocal immunofluorescent analysis of Aldolase (ALDOA) Antibody (N-term)(Cat#AP2726a) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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