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

ALDOB Rabbit pAb

Catalog # AP99829

Product Information

Application	WB
Primary Accession	P05062
Other Accession	P05062
Reactivity	Human
Predicted	Rat, Pig, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39473
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ALDOB
Epitope Specificity	261-364/364
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the class I fructose-bisphosphate aldolase family.
SUBUNIT	Homotetramer.
DISEASE	Hereditary fructose intolerance (HFI) [MIM:229600]: Autosomal recessive disease that results in an inability to metabolize fructose and related sugars. Complete exclusion of fructose results in dramatic recovery; however, if not treated properly, HFI subjects suffer episodes of hypoglycemia, general ill condition, and risk of death the remainder of life. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ALDOB is a tetrameric glycolytic enzyme that catalyzes the reversible conversion of fructose-1,6-bisphosphate to glyceraldehyde 3-phosphate and dihydroxyacetone phosphate. Defects in ALDOB cause hereditary fructose intolerance.

Additional Information

Gene ID	229
Other Names	ALDB; ALDO2; Aldo-2; LIV10; ALDOB_HUMAN; ALDOB; Liver-type aldolase; 4.1.2.13; ALDOB_MOUSE; Aldolase 2; ALDOB_RAT; aldolase, fructose-bisphosphate B; aldolase B, fructose-bisphosphate
Dilution	WB=1:500-2000,ICC/IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ALDOB {ECO:0000303|PubMed:15880727, ECO:0000312|HGNC:HGNC:417}
Function	Catalyzes the aldol cleavage of fructose 1,6-biphosphate to form two triosephosphates dihydroxyacetone phosphate and D- glyceraldehyde 3-phosphate in glycolysis as well as the reverse stereospecific aldol addition reaction in gluconeogenesis. In fructolysis, metabolizes fructose 1-phosphate derived from the phosphorylation of dietary fructose by fructokinase into dihydroxyacetone phosphate and D-glyceraldehyde (PubMed:10970798, PubMed:12205126, PubMed:20848650). Acts as an adapter independently of its enzymatic activity, exerts a tumor suppressor role by stabilizing the ternary complex with G6PD and TP53 to inhibit G6PD activity and keep oxidative pentose phosphate metabolism in check (PubMed:35122041).
Cellular Location	Cytoplasm, cytosol. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriolar satellite

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