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

TALDO1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6679c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P37837
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19884
Calculated MW	37540
Antigen Region	186-215

Additional Information

Gene ID	6888
Other Names	Transaldolase, TALDO1, TAL, TALDO, TALDOR
Target/Specificity	This TALDO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 186-215 amino acids from the Central region of human TALDO1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	TALDO1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TALDO1 (HGNC:11559)
Synonyms	TAL, TALDO, TALDOR
Function	Catalyzes the rate-limiting step of the non-oxidative phase in the pentose

phosphate pathway. Catalyzes the reversible conversion of sedoheptulose-7-phosphate and D-glyceraldehyde 3-phosphate into erythrose-4-phosphate and beta-D-fructose 6-phosphate (PubMed:18687684, PubMed:8955144). Not only acts as a pentose phosphate pathway enzyme, but also affects other metabolite pathways by altering its subcellular localization between the nucleus and the cytoplasm (By similarity).

Cellular Location

[Isoform 1]: Nucleus {ECO:0000250|UniProtKB:Q93092}. Cytoplasm {ECO:0000250|UniProtKB:Q93092}. Note=Shuttles between the nucleus and the cytoplasm. Actively transported into the nucleus in an importin alpha/beta-dependent manner. Exported into the cytoplasm by CRM1 {ECO:0000250|UniProtKB:Q93092}

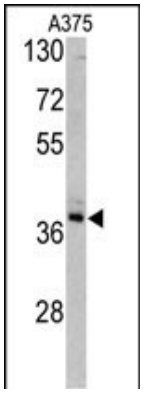
Background

Transaldolase 1 is a key enzyme of the nonoxidative pentose phosphate pathway providing ribose-5-phosphate for nucleic acid synthesis and NADPH for lipid biosynthesis. This pathway can also maintain glutathione at a reduced state and thus protect sulfhydryl groups and cellular integrity from oxygen radicals.

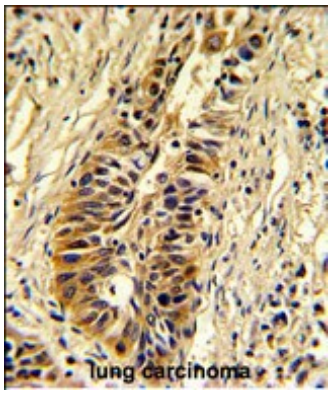
References

Schneider,S., J. Biol. Chem. 283 (44), 30064-30072 (2008)
Qian,Y., Biochem. J. 415 (1), 123-134 (2008)
Wamelink,M.M., J. Inherit. Metab. Dis. 30 (5), 735-742 (2007)

Images

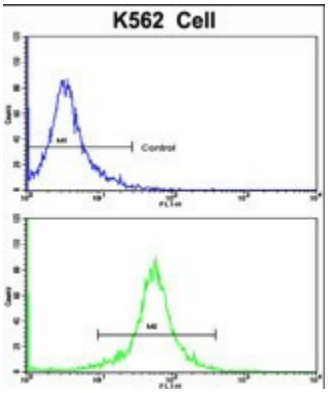


Western blot analysis of TALDO1 antibody (Center) (Cat. #AP6679c) in A375 cell line lysates (35ug/lane). TALDO1 (arrow) was detected using the purified Pab.

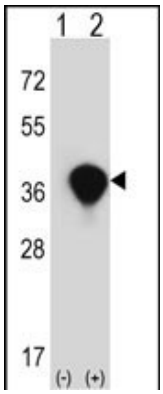


Formalin-fixed and paraffin-embedded human lung carcinoma reacted with TALDO1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Flow cytometric analysis of K562 cells using TALDO1 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated



goat-anti-rabbit secondary antibodies were used for the analysis.



Western blot analysis of TALDO1 (arrow) using rabbit polyclonal TALDO1 Antibody (Center) (Cat. #AP6679c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the TALDO1 gene.

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