

DHTKD1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP10715C

Product Information

Application	WB, E
Primary Accession	Q96HY7
Other Accession	Q4KLP0 , A2ATU0 , NP_061176.3
Reactivity	Human, Mouse
Predicted	Rat, Rabbit, Chicken, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27514
Calculated MW	103077
Antigen Region	392-421

Additional Information

Gene ID	55526
Other Names	Probable 2-oxoglutarate dehydrogenase E1 component DHKTD1, mitochondrial, Dehydrogenase E1 and transketolase domain-containing protein 1, DHTKD1, KIAA1630
Target/Specificity	This DHTKD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 392-421 amino acids from the Central region of human DHTKD1.
Dilution	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 purified through a protein A column, followed by peptide affinity purification.
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	DHTKD1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DHTKD1
Synonyms	KIAA1630

Function 2-oxoadipate dehydrogenase (E1a) component of the 2-oxoadipate dehydrogenase complex (OADHC) (PubMed:[29191460](#), PubMed:[29752936](#), PubMed:[32303640](#), PubMed:[32633484](#), PubMed:[32695416](#)). Participates in the first step, rate limiting for the overall conversion of 2-oxoadipate (alpha-ketoadipate) to glutaryl-CoA and CO(2) catalyzed by the whole OADHC (PubMed:[29191460](#), PubMed:[32695416](#)). Catalyzes the irreversible decarboxylation of 2-oxoadipate via the thiamine diphosphate (ThDP) cofactor and subsequent transfer of the decarboxylated acyl intermediate on an oxidized dihydrolipoyl group that is covalently amidated to the E2 enzyme (dihydrolipoyllysine- residue succinyltransferase or DLST) (Probable) (PubMed:[29752936](#), PubMed:[32303640](#), PubMed:[32633484](#)). Can catalyze the decarboxylation of 2-oxoglutarate in vitro, but at a much lower rate than 2-oxoadipate (PubMed:[29191460](#), PubMed:[29752936](#), PubMed:[32633484](#), PubMed:[32695416](#)). Responsible for the last step of L-lysine, L-hydroxylysine and L-tryptophan catabolism with the common product being 2-oxoadipate (Probable).

Cellular Location Mitochondrion.

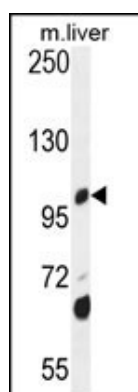
Background

The 2-oxoglutarate dehydrogenase complex catalyzes the overall conversion of 2-oxoglutarate to succinyl-CoA and CO(2). It contains multiple copies of three enzymatic components: 2-oxoglutarate dehydrogenase (E1), dihydrolipoamide succinyltransferase (E2) and lipoamide dehydrogenase (E3) (By similarity).

References

Wang, A.G., et al. Biochem. Biophys. Res. Commun. 345(3):1022-1032(2006)
Grupe, A., et al. Am. J. Hum. Genet. 78(1):78-88(2006)

Images



DHTKD1 Antibody (Center) (Cat. #AP10715c) western blot analysis in mouse liver tissue lysates (35ug/lane). This demonstrates the DHTKD1 antibody detected the DHTKD1 protein (arrow).

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