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# DHTKD1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10715C

## Product Information

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|---|---|
| **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

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| **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

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| **Name** | DHTKD1 |
| **Synonyms** | KIAA1630 |

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| **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. |

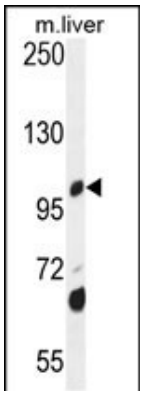
## Background

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'.