

DHTKD1 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP10715c**Specification**

DHTKD1 Antibody (Center) Blocking peptide - Product InformationPrimary Accession [Q96HY7](#)**DHTKD1 Antibody (Center) Blocking peptide - 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DHTKD1 Antibody (Center) Blocking peptide - Protein Information**Name** DHTKD1**Synonyms** KIAA1630**Function**

2-oxoadipate dehydrogenase (E1a) component of the 2-oxoadipate dehydrogenase complex (OADHC) (PubMed: [29191460](http://www.uniprot.org/citations/29191460)), PubMed: [29752936](http://www.uniprot.org/citations/29752936), PubMed: [32303640](http://www.uniprot.org/citations/32303640), PubMed: [32633484](http://www.uniprot.org/citations/32633484), PubMed: [32695416](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/29191460), PubMed: [32695416](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/29752936), PubMed: [29752936](http://www.uniprot.org/citations/29752936)).

href="http://www.uniprot.org/citations/32303640" target="_blank">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.

DHTKD1 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

DHTKD1 Antibody (Center) Blocking peptide - Images

DHTKD1 Antibody (Center) Blocking peptide - Background

The 2-oxoglutarate dehydrogenase complex catalyzes the overall conversion of 2-oxoglutarate to succinyl-CoA and CO₂. It contains multiple copies of three enzymatic components: 2-oxoglutarate dehydrogenase (E1), dihydrolipoamide succinyltransferase (E2) and lipoamide dehydrogenase (E3) (By similarity).

DHTKD1 Antibody (Center) Blocking peptide - 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)