

OGDH Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP56804

Specification

OGDH Polyclonal Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC-P <u>Q02218</u> Pig, Bovine Rabbit Polyclonal 115935

OGDH Polyclonal Antibody - Additional Information

Gene ID 4967

Other Names

2-oxoglutarate dehydrogenase, mitochondrial, 1.2.4.2, 2-oxoglutarate dehydrogenase complex component E1, OGDC-E1, Alpha-ketoglutarate dehydrogenase, OGDH (HGNC:8124)

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

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.

OGDH Polyclonal Antibody - Protein Information

Name OGDH (HGNC:8124)

Function

2-oxoglutarate dehydrogenase (E1o) component of the 2- oxoglutarate dehydrogenase complex (OGDHC) (PubMed:24495017, PubMed:25210035, PubMed:28435050). Participates in the first step, rate limiting for the overall conversion of 2-oxoglutarate to succinyl-CoA and CO(2) catalyzed by the whole OGDHC (PubMed:, PubMed:24495017, PubMed:24495017, PubMed:28435050, PubMed:28435050, PubMed:24495017, PubMed:2210035, PubMed:2210035, PubMed:2210035, PubMed:224495017, PubMed:224495017, PubMed:224495017, PubMed:2210035, PubMed:2210035, PubMed:2210035, PubMed:2210035, PubMed:224495017, PubMed:224495017, PubMed:224495017, PubMed:224495017, PubMed:22210035, PubMed:22210035, PubMed:22210035, PubMed:22210035, PubMed:22210035, PubMed:22210035, PubMed:2

Catalyzes the irreversible decarboxylation of 2-oxoglutarate (alpha-ketoglutarate) 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) (PubMed:<a



href="http://www.uniprot.org/citations/24495017" target="_blank">24495017, PubMed:25210035, PubMed:28435050, PubMed:28435050, PubMed:35272141). Plays a key role in the Krebs (citric acid) cycle, which is a common pathway for oxidation of fuel molecules, including carbohydrates, fatty acids, and amino acids (PubMed:25210035). Can catalyze the decarboxylation of 2-oxoadipate in vitro, but at a much lower rate than 2-oxoglutarate (PubMed:28435050). Mainly active in the mitochondrion (PubMed:29211711). A fraction of the 2-oxoglutarate dehydrogenase complex also localizes in the nucleus and is required for lysine succinylation of histones: associates with KAT2A on chromatin and provides succinyl-CoA to histone succinyltransferase KAT2A (PubMed:29211711).

Cellular Location

Mitochondrion. Nucleus. Note=Mainly localizes in the mitochondrion. A small fraction localizes to the nucleus, where the 2- oxoglutarate dehydrogenase complex is required for histone succinylation.

OGDH Polyclonal Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

OGDH Polyclonal Antibody - Images



Paraformaldehyde-fixed, paraffin embedded (human breast); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (OGDH) Polyclonal Antibody, Unconjugated (bs-17710R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.