

OGDH Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56804

Specification

OGDH Polyclonal Antibody - Product Information

Application	IHC-P
Primary Accession	O02218
Reactivity	Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	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](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=8124))

Format

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

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 (E1 α) component of the 2-oxoglutarate dehydrogenase complex (OGDHC) (PubMed: [24495017](http://www.uniprot.org/citations/24495017), PubMed: [25210035](http://www.uniprot.org/citations/25210035), PubMed: [28435050](http://www.uniprot.org/citations/28435050)). Participates in the first step, rate limiting for the overall conversion of 2-oxoglutarate to succinyl-CoA and CO₂ catalyzed by the whole OGDHC (PubMed: [24495017](http://www.uniprot.org/citations/24495017), PubMed: [25210035](http://www.uniprot.org/citations/25210035), PubMed: [28435050](http://www.uniprot.org/citations/28435050)). 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: [24495017](#))

<http://www.uniprot.org/citations/24495017> target="_blank">24495017, PubMed:25210035, 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

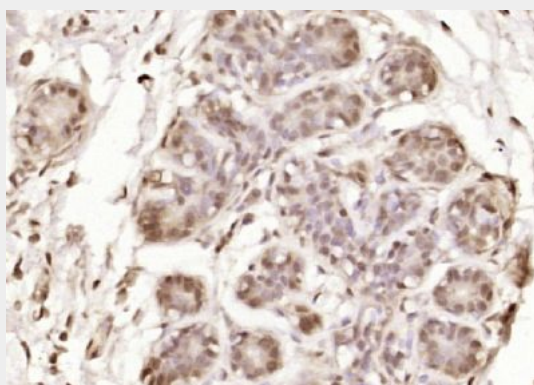
Mitochondrion. Nucleus. Note=Mainly localizes in the mitochondrion. A small fraction localizes to the nucleus, where the 2- oxoglutarate dehydrogenase complex is required for histone succinylation.

OGDH Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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) instructions and DAB staining.