

OGDH Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56804**Specification****OGDH Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q02218
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, OGDH-E1, Alpha-ketoglutarate dehydrogenase, OGDH (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=8124)
HGNC:8124

Dilution

IHC-P ~ N/A
IHC-F ~ N/A
IF ~ 1:50 ~ 200
ICC ~ N/A
E ~ N/A

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 (E1 α) component of the 2-oxoglutarate dehydrogenase complex (OGDHC) (PubMed: <http://www.uniprot.org/citations/24495017>, PubMed: <http://www.uniprot.org/citations/25210035>, PubMed: <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: <http://www.uniprot.org/citations/24495017>).

PubMed:25210035, PubMed: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, 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

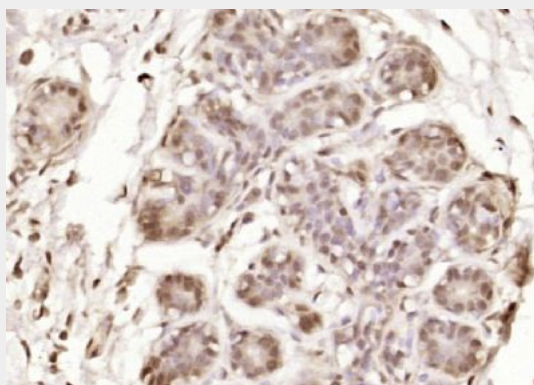
Mitochondrion. Nucleus. Note=Mainly localizes in the mitochondrion. A small fraction localizes to the nucleus, where the 2- oxoglutarate dehydrogenase complex is required for histone succinylation.

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.