

Sorbitol Dehydrogenase Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58096

Specification

Sorbitol Dehydrogenase Polyclonal Antibody - Product Information

Application WB, IHC-P, IHC-F, IF

Primary Accession <u>Q00796</u>

Reactivity Rat, Pig, Dog, Bovine Host Rabbit

Clonality Polyclonal Calculated MW 38325

Sorbitol Dehydrogenase Polyclonal Antibody - Additional Information

Gene ID 6652

Other Names

Sorbitol dehydrogenase, SDH, 1.1.1.-, (R, R)-butanediol dehydrogenase, 1.1.1.4, L-iditol 2-dehydrogenase, 1.1.1.14, Polyol dehydrogenase, Ribitol dehydrogenase, RDH, 1.1.1.56, Xylitol dehydrogenase, XDH, 1.1.1.9, SORD

Format

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

Storage

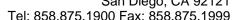
Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Sorbitol Dehydrogenase Polyclonal Antibody - Protein Information

Name SORD

Function

Polyol dehydrogenase that catalyzes the reversible NAD(+)- dependent oxidation of various sugar alcohols. Is mostly active with D- sorbitol (D-glucitol), L-threitol, xylitol and ribitol as substrates, leading to the C2-oxidized products D-fructose, L-erythrulose, D- xylulose, and D-ribulose, respectively (PubMed:3365415" target="_blank">3365415). Is a key enzyme in the polyol pathway that interconverts glucose and fructose via sorbitol, which constitutes an important alternate route for glucose metabolism. The polyol pathway is believed to be involved in the etiology of diabetic complications, such as diabetic neuropathy and retinopathy, induced by hyperglycemia (PubMed:12962626, PubMed:29966615, PubMed:25105142). May play a role in sperm motility by using sorbitol as an alternative energy source for sperm motility (PubMed:16278369). May have a more general function in the metabolism of secondary alcohols since it also catalyzes





the stereospecific oxidation of (2R,3R)-2,3-butanediol. To a lesser extent, can also oxidize L-arabinitol, galactitol and D-mannitol and glycerol in vitro. Oxidizes neither ethanol nor other primary alcohols. Cannot use NADP(+) as the electron acceptor (PubMed:3365415).

Cellular Location

Mitochondrion membrane {ECO:0000250|UniProtKB:Q64442}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q64442}. Cell projection, cilium, flagellum {ECO:0000250|UniProtKB:Q64442}. Note=Associated with mitochondria of the midpiece and near the plasma membrane in the principal piece of the flagellum. Also found in the epididymosome, secreted by the epididymal epithelium and that transfers proteins from the epididymal fluid to the sperm surface. {ECO:0000250|UniProtKB:Q64442}

Tissue Location

Expressed in liver (PubMed:3365415). Expressed in kidney and epithelial cells of both benign and malignant prostate tissue. Expressed in epididymis (at protein level)

Sorbitol Dehydrogenase Polyclonal Antibody - Protocols

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

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

Sorbitol Dehydrogenase Polyclonal Antibody - Images