

FAHD1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55069

Specification

FAHD1 Polyclonal Antibody - Product Information

Application

Primary Accession

Reactivity Host Clonality Calculated MW Physical State

Immunogen

Epitope Specificity

Purity

affinity purified by Protein A

0.01M TBS (pH7.4) with 1% BSA, 0.02%

KLH conjugated synthetic peptide derived

Proclin300 and 50% Glycerol.

Mitochondrion. Cytoplasm, cytosol.

Belongs to the FAH family.

WB, IHC-P, IHC-F, IF, ICC, E

Rat, Pig, Dog, Bovine

from human FAHD1

Homodimer.

O6P587

Rabbit

22 KDa

Liquid

Polyclonal

101-200/224

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Buffer

SUBCELLULAR LOCATION SIMILARITY

SUBUNIT Important Note

Background Descriptions

FAHD1 is a 224 amino acid protein belonging to the FAH family. Present as a homodimer, FAHD1 is thought to have hydrolase activity and uses magnesium and calcium as cofactors. The gene that encodes FAHD1 maps to human chromosome 16, which encodes over 900 genes in approximately 90 million base pairs, making up nearly 3% of human cellular DNA. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, though through the CREBBP gene which encodes a critical CREB binding protein. Signs of Rubinstein-Taybi include mental retardation and predisposition to tumor growth and white blood cell neoplasias. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene. An association with systemic lupus erythematosis and a number of other autoimmune disorders with the pericentromeric region of chromosome 16 has led to the identification of SLC5A11 as a potential autoimmune modifier.

FAHD1 Polyclonal Antibody - Additional Information

Gene ID 81889

Other Names

Acylpyruvase FAHD1, mitochondrial, 3.7.1.5, Fumarylacetoacetate hydrolase domain-containing protein 1, FAH domain-containing protein 1, Oxaloacetate decarboxylase, OAA decarboxylase,



4.1.1.112, YisK-like protein, FAHD1, C16orf36, YISKL

Target/Specificity

Ubiquitous (at protein level).

Dilution

WB~~1:1000<br \><span class
="dilution_IHC-P">IHC-P~~N/A<br \><span class
="dilution_IHC-F">IHC-F~~N/A<br \><span class
="dilution_IF">IF~~1:50~200<br \>ICC~~N/A<br \>ICC~~N/A<br \>ICC~~N/A<br \>ICC~~N/A

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.

FAHD1 Polyclonal Antibody - Protein Information

Name FAHD1 {ECO:0000303|PubMed:21878618, ECO:0000312|HGNC:HGNC:14169}

Function

Tautomerase that converts enol-oxaloacetate, a strong inhibitor of succinate dehydrogenase, to the physiological keto form of oxaloacetate (PubMed:38287013). It is thereby required to maximize aerobic respiration efficiency by preventing succinate dehydrogenase inhibition (PubMed:<a href="http://www.uniprot.org/citations/38287013"

target="_blank">38287013). Also acts as a weak oxaloacetate decarboxylase (ODx), catalyzing the decarboxylation of oxaloacetate (OAA) to pyruvate and CO(2), and as such is likely a regulatory enzyme in the TCA cycle (PubMed:25575590, PubMed:30348641). Also displays acylpyruvase activity, being able to hydrolyze acetylpyruvate and fumarylpyruvate in vitro (PubMed:21878618, PubMed:30348641). Exhibits only a weak hydrolase activity on methylacetopyruvate and acetylacetone, and no activity toward acetoacetyl-CoA (PubMed:21878618).

Cellular Location

Mitochondrion. Cytoplasm, cytosol

Tissue Location

Ubiquitous (at protein level).

FAHD1 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence





- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

FAHD1 Polyclonal Antibody - Images