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DDHD1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55468

Specification

DDHD1 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q8NEL9
Reactivity	**Rat, Pig, Dog, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**100 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human DDHD1**
Epitope Specificity	**751-850/900**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Cytoplasmic**
SIMILARITY	**Belongs to the PA-PLA1 family.Contains 1 DDHD domain.**
SUBUNIT	**Forms homooligomers and, to a much smaller extent, heterooligomers with DDHD2.**
DISEASE	**Spastic paraplegia 28, autosomal recessive (SPG28) [MIM:609340]: A form of spastic paraplegia, a neurodegenerative disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs. Rate of progression and the severity of symptoms are quite variable. Initial symptoms may include difficulty with balance, weakness and stiffness in the legs, muscle spasms, and dragging the toes when walking. In some forms of the disorder, bladder symptoms (such as incontinence) may appear, or the weakness and stiffness may spread to other parts of the body. Some SPG28 patients also have distal sensory impairment. Note=The disease is caused by mutations affecting the gene represented in this entry.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions

Phosphatidic acid is released following cell activation and functions as a second messenger in several signaling pathways. DDHD1 is a lipase that catalyzes degradation of phosphatidic acid and attenuates cell activation.

DDHD1 Polyclonal Antibody - Additional Information

Gene ID 80821

Other Names
Phospholipase DDHD1, 3.1.1.-, DDHD domain-containing protein 1, Phosphatidic acid-preferring phospholipase A1 homolog, PA-PLA1, DDHD1 (HGNC:19714), KIAA1705

Target/Specificity
Highly expressed in testis. Also expressed in brain, spleen and lung. Only expressed in cerebellum in fetal brain.

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

DDHD1 Polyclonal Antibody - Protein Information

Name DDHD1 (HGNC:19714)

Synonyms KIAA1705

Function
Phospholipase A1 (PLA1) that hydrolyzes ester bonds at the sn-1 position of glycerophospholipids producing a free fatty acid and a lysophospholipid (Probable) (PubMed:20359546, PubMed:22922100). Prefers phosphatidate (1,2-diacyl-sn-glycero-3-phosphate, PA) as substrate in vitro, but can efficiently hydrolyze phosphatidylinositol (1,2-diacyl- sn-glycero-3-phospho-(1D-myo-inositol), PI), as well as a range of other glycerophospholipid substrates such as phosphatidylcholine (1,2-diacyl-sn-glycero-3-phosphocholine, PC), phosphatidylethanolamine (1,2-diacyl-sn-glycero-3-phosphoethanolamine, PE), phosphatidylserine (1,2-diacyl-sn-glycero-3-phospho-L-serine, PS) and phosphatidylglycerol (1,2-diacyl-sn-glycero-3-phospho-(1'-sn-glycerol), PG) (Probable) (PubMed:20359546). Involved in the regulation of the endogenous content of polyunsaturated PI and PS lipids in the nervous system. Changes in these lipids extend to downstream metabolic products like PI phosphates PIP and PIP2, which play fundamental roles in cell biology (By similarity). Regulates mitochondrial morphology (PubMed:24599962). These dynamic changes may be due to PA hydrolysis at the mitochondrial surface (PubMed:<a href="http://www.uniprot.org/citations/24599962"

target="_blank">24599962). May play a regulatory role in spermatogenesis or sperm function (PubMed:24599962).

Cellular Location
Cytoplasm.

Tissue Location
Highly expressed in testis. Also expressed in brain, spleen and lung. Only expressed in cerebellum in fetal brain

DDHD1 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 Cytomety
- Cell Culture

DDHD1 Polyclonal Antibody - Images