10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GDPD2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18406c

Product Information

Application	WB, E
Primary Accession	Q9HCC8
Other Accession	NP_060181.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB38460
Calculated MW	61729
Antigen Region	305-334

Additional Information

Gene ID	54857
Other Names	Glycerophosphoinositol inositolphosphodiesterase GDPD2, Glycerophosphodiester phosphodiesterase 3, Glycerophosphodiester phosphodiesterase domain-containing protein 2, Osteoblast differentiation promoting factor, GDPD2, GDE3, OBDPF
Target/Specificity	This GDPD2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 305-334 amino acids from the Central region of human GDPD2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GDPD2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GDPD2 (HGNC:25974)
Function	Calcium-dependent ecto-phospholipase C that cleaves the phosphodiester

	bond between the glycerol backbone and phosphate group of glycerophospholipids at the cell surface, regulating multiple signaling pathways (PubMed:28849762, PubMed:32629025, PubMed:32917725). Substrates include GPI-anchored proteins, which are released from the membrane upon cleavage of the inositol-phosphate linkage. For example, cleavage and release of UPAR/PLAUR regulates cell-matrix adhesion and extracellular matrix remodeling (PubMed:28849762). Also cleaves the glycosylphosphatidylinositol (GPI) anchor of metalloproteases TRABD2A and TRABD2B, releasing them from the plasma membrane. This release modulates their regulation of Wnt signaling (PubMed:35182431). Also hydrolyzes lysophosphatidylinositol (LPI) to monoacylglycerol and inositol-1-phosphate. Converts 2-arachidonoyl-LPI, the endogenous GPR55 agonist, into 2-arachidonoylglycerol (2-AG), an endocannabinoid that activates CNR1/CNR2. Thereby, acts as a switch redirecting signaling from GPR55 to CNR1/CNR2 within the endocannabinoid system that could alternatively regulate osteoblast proliferation and differentiation (PubMed:32629025, PubMed:32917725). Can also cleave glycerophosphoinositol to glycerol and inositol-1-phosphate in vitro (By similarity). May also play a role in remodeling of the actin cytoskeleton (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Note=Colocalizes with the actin cytoskeleton. {ECO:0000250|UniProtKB:Q9ESM6}

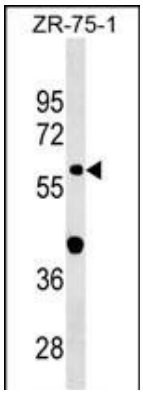
Background

This gene encodes a member of the glycerophosphodiester phosphodiesterase enzyme family. The encoded protein hydrolyzes glycerophosphoinositol to produce inositol 1-phosphate and glycerol. This protein may have a role in osteoblast differentiation and growth. Alternate splicing results in multiple transcript variants.

References

Corda, D., et al. J. Biol. Chem. 284(37):24848-24856(2009)
Yanaka, N., et al. J. Biol. Chem. 278(44):43595-43602(2003)

Images



GDPD2 Antibody (Center) (Cat. #AP18406c) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the GDPD2 Antibody detected the GDPD2 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.