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GDPD5 Antibody (center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10992c

Product Information

Application	WB, E
Primary Accession	Q8WTR4
Other Accession	NP_110419.5
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	68586
Antigen Region	342-369

Additional Information

Gene ID	81544
Other Names	Glycerophosphodiester phosphodiesterase domain-containing protein 5, 31--, Glycerophosphodiester phosphodiesterase 2, GDPD5, GDE2
Target/Specificity	This GDPD5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 342-369 amino acids from the Central region of human GDPD5.
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	GDPD5 Antibody (center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GDPD5 (HGNC:28804)
Function	Ecto-phospholipase that cleaves the phosphodiester bond in the glycosylphosphatidylinositol (GPI) anchor of various proteins, releasing them from the plasma membrane into the extracellular space (PubMed:27693046,

	PubMed:31932507, PubMed:33731436). Cleaves the GPI- anchor of glypican-6/GPC6, thereby positively regulating neuron differentiation in a cell-autonomous manner (PubMed:27693046, PubMed:31932507). May also hydrolyze the GPI-anchor of glypican-3/GPC3 (PubMed:27693046). Cleaves the GPI-anchor of the serine protease inhibitor RECK, leading to its inactivation (PubMed:33731436). RECK inactivation inhibits NOTCH signaling in neighboring cells and induces differentiation of spinal motor neurons (By similarity). RECK inactivation can also regulate amyloid-beta precursor protein (APP) processing by ADAM10 (PubMed:33731436). May additionally catalyze the hydrolysis of the phosphodiester bond in sn-glycerol 3-phosphocholine, potentially contributing to osmotic regulation of cellular glycerophosphocholine levels (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Membrane raft; Multi-pass membrane protein. Cell projection, growth cone {ECO:0000250|UniProtKB:Q640M6}. Note=Colocalizes with recycling endosome as it undergoes constitutive clathrin- and dynamin-mediated internalization and recycling.

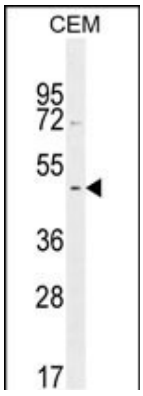
Background

Glycerophosphodiester phosphodiesterases (GDPDs; EC 3.1.4.46), such as GDPD5, are involved in glycerol metabolism (Lang et al., 2008 [PubMed 17578682]).

References

Lang, Q., et al. Mol. Biol. Rep. 35(3):351-359(2008) Rao, M., et al. Science 309(5744):2212-2215(2005) Wan, D., et al. Proc. Natl. Acad. Sci. U.S.A. 101(44):15724-15729(2004) Clark, H.F., et al. Genome Res. 13(10):2265-2270(2003)

Images



GDPD5 Antibody (center) (Cat. #AP10992c) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the GDPD5 antibody detected the GDPD5 protein (arrow).

Citations

- Glycerophosphodiester phosphodiesterase domain containing 5 (GDPD5) expression correlates with malignant choline phospholipid metabolite profiles in human breast cancer.

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