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

ZDHC3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16170a

Product Information

Application	WB, E
Primary Accession	Q9NYG2
Other Accession	NP_057682.1, NP_001128651.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35501
Calculated MW	34170
Antigen Region	1-30

Additional Information

Gene ID	51304
Other Names	Palmitoyltransferase ZDHHC3, Protein DHHC1, Zinc finger DHHC domain-containing protein 3, DHHC-3, Zinc finger protein 373, ZDHHC3, ZNF373
Target/Specificity	This ZDHC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ZDHC3.
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	ZDHC3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ZDHHC3 (HGNC:18470)
Function	Golgi-localized palmitoyltransferase that catalyzes the addition of palmitate

	onto various protein substrates (PubMed:19001095, PubMed:21926431, PubMed:22240897, PubMed:22314500, PubMed:23034182). Has no stringent fatty acid selectivity and in addition to palmitate can also transfer onto target proteins myristate from tetradecanoyl-CoA and stearate from octadecanoyl-CoA (By similarity). Plays an important role in G protein-coupled receptor signaling pathways involving GNAQ and potentially other heterotrimeric G proteins by regulating their dynamic association with the plasma membrane (PubMed:19001095). Palmitoylates ITGA6 and ITGB4, thereby regulating the alpha-6/beta-4 integrin localization, expression and function in cell adhesion to laminin (PubMed:22314500). Plays a role in the TRAIL-activated apoptotic signaling pathway most probably through the palmitoylation and localization to the plasma membrane of TNFRSF10A (PubMed:22240897). In the brain, by palmitoylating the gamma subunit GABRG2 of GABA(A) receptors and regulating their postsynaptic accumulation, plays a role in synaptic GABAergic inhibitory function and GABAergic innervation (By similarity). Palmitoylates the neuronal protein GAP43 which is also involved in the formation of GABAergic synapses (By similarity). Palmitoylates NCDN thereby regulating its association with endosome membranes (By similarity). Probably palmitoylates PRCD and is involved in its proper localization within the photoreceptor (By similarity). Could mediate the palmitoylation of NCAM1 and regulate neurite outgrowth (By similarity). Could palmitoylate DNAJC5 and regulate its localization to Golgi membranes (By similarity). Also constitutively palmitoylates DLG4 (By similarity). May also palmitoylate SNAP25 (By similarity). Could palmitoylate the glutamate receptors GRIA1 and GRIA2 but this has not been confirmed in vivo (By similarity). Could also palmitoylate the D(2) dopamine receptor DRD2 (PubMed:26535572). May also palmitoylate LAMTOR1, promoting its localization to lysosomal membranes (PubMed:35893977). Palmitoylates the Toll-like receptor 9/TLR9 in the Golgi and thereby regulates TLR9 trafficking to endosomes (PubMed:38169466). May palmitoylate CALHM1 and CALHM3 subunits of gustatory voltage-gated ion channels and modulate channel gating and kinetics (By similarity). Catalyzes the palmitoylation of CADM4 at 'Cys-347', ensuring its localization to the plasma membrane (PM) and protein stability (By similarity). The presence of CADM4 at the PM is essential for its function in CNS myelination, particularly through its associations with other cell adhesion molecules (By similarity).
Cellular Location	Golgi apparatus membrane; Multi-pass membrane protein. Note=Localizes to the Golgi cis cisterna. {ECO:0000250|UniProtKB:Q8R173}
Tissue Location	Widely expressed with significant expression in heart, lung, liver, skeletal muscle, kidney, testis, thymus, small intestine and leukocyte.

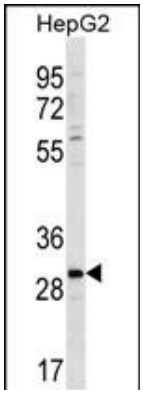
Background

Palmitoyltransferase with broad specificity. Palmitoylates GABA receptors on their gamma subunit (GABRG1, GABRG2 and GABRG3), which regulates synaptic clustering and/or cell surface stability. Palmitoylates glutamate receptors GRIA1 and GRIA2, which leads to their retention in Golgi (By similarity).

References

Hines, R.M., et al. J. Biol. Chem. 285(7):4621-4628(2010)
Lim, J., et al. Cell 125(4):801-814(2006)
Colland, F., et al. Genome Res. 14(7):1324-1332(2004)
Uemura, T., et al. Biochem. Biophys. Res. Commun. 296(2):492-496(2002)

Images



ZDHC3 Antibody (N-term) (Cat. #AP16170a) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the ZDHC3 antibody detected the ZDHC3 protein (arrow).

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