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ZDHC3 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16170a

Specification

ZDHC3 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9NYG2

ZDHC3 Antibody (N-term) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ZDHC3 Antibody (N-term) Blocking Peptide - 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:23034182, PubMed:22314500). 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:<a

href="http://www.uniprot.org/citations/22240897" target="_blank">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).

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.

ZDHC3 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ZDHC3 Antibody (N-term) Blocking Peptide - Images

ZDHC3 Antibody (N-term) Blocking Peptide - 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).

ZDHC3 Antibody (N-term) Blocking Peptide - 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)