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

FREQ Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14572a

Product Information

Application	WB, IHC-P, E
Primary Accession	P62166
Other Accession	Q91614, P62168, Q8BNY6, P62167, Q2V8Y7, NP_001122298.1, NP_055101.2
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34545
Calculated MW	21879
Antigen Region	1-30

Additional Information

Gene ID	23413
Other Names	Neuronal calcium sensor 1, NCS-1, Frequenin homolog, Frequenin-like protein, Frequenin-like ubiquitous protein, NCS1, FLUP, FREQ
Target/Specificity	This FREQ antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human FREQ.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	FREQ Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NCS1
Synonyms	FLUP, FREQ

Function	Neuronal calcium sensor, regulator of G protein-coupled receptor phosphorylation in a calcium dependent manner. Directly regulates GRK1 (RHOK), but not GRK2 to GRK5. Can substitute for calmodulin (By similarity). Stimulates PI4KB kinase activity (By similarity). Involved in long-term synaptic plasticity through its interaction with PICK1 (By similarity). May also play a role in neuron differentiation through inhibition of the activity of N-type voltage- gated calcium channel (By similarity).
Cellular Location	Golgi apparatus. Postsynaptic density. Cytoplasm, perinuclear region. Cytoplasm {ECO:0000250|UniProtKB:P62168}. Cell membrane; Peripheral membrane protein. Membrane {ECO:0000250|UniProtKB:P62168}; Lipid-anchor Note=Associated with Golgi stacks. Post-synaptic densities of dendrites, and in the pre-synaptic nerve terminal at neuromuscular junctions. {ECO:0000305, ECO:0000305|PubMed:17555535}

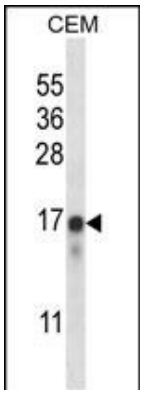
Background

This gene is a member of the neuronal calcium sensor gene family, which encode calcium-binding proteins expressed predominantly in neurons. The protein encoded by this gene regulates G protein-coupled receptor phosphorylation in a calcium-dependent manner and can substitute for calmodulin. The protein is associated with secretory granules and modulates synaptic transmission and synaptic plasticity. Multiple transcript variants encoding different isoforms have been found for this gene.

References

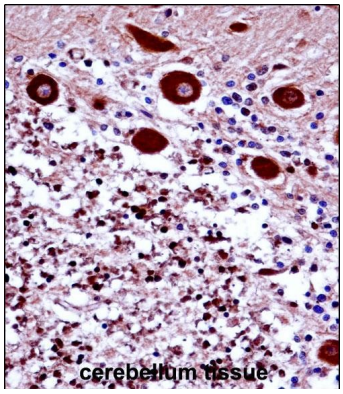
Pinheiro, A.P., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (5), 1070-1080 (2010) :
Handley, M.T., et al. PLoS ONE 5 (5), E10534 (2010) :
Torres, K.C., et al. Prog. Neuropsychopharmacol. Biol. Psychiatry 33(2):229-234(2009)
Szafranski, K., et al. Genome Biol. 8 (8), R154 (2007) :
Kapp-Barnea, Y., et al. Mol. Biol. Cell 17(9):4130-4141(2006)

Images



FREQ Antibody (N-term) (Cat. #AP14572a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the FREQ antibody detected the FREQ protein (arrow).

FREQ Antibody (N-term) (AP14572a)immunohistochemistry analysis in formalin fixed and paraffin embedded human cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of FREQ Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



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