10320 Camino Santa Fe, Suite G
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Anti-FREQUENIN (RABBIT) Antibody

Frequenin Antibody
Catalog # ASR5168

Specification

Anti-FREQUENIN (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Mouse**
Reactivity	**Mouse**
Clonality	**Polyclonal**
Application	**WB, E, I, LCI**
Application Note	**This product was assayed by immunoblot and found to be reactive against Frequenin at a dilution of 1:5000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG [H&L] (Goat) code #611-1302. Anti-Frequenin is suitable for the detection by immunoblot of human, mouse and rat Frequenin. Anti-Frequenin has also been tested for use in IF using Hippocampal neurons of 17 day old NMRI mice.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Frequenin (recombinant from Mouse with extensive post-translational modifications)**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-FREQUENIN (RABBIT) Antibody - Additional Information

Gene ID 14299

Other Names
14299

Purity
This product was prepared from monospecific antiserum by immunoaffinity chromatography using Frequenin (recombinant) coupled to agarose beads. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

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Anti-FREQUENIN (RABBIT) Antibody - Protein Information

Name Ncs1

Synonyms 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).

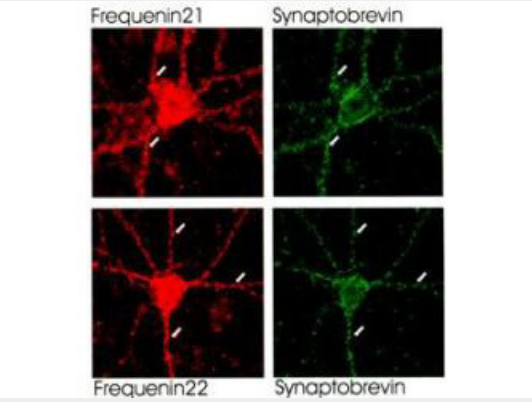
Cellular Location
Golgi apparatus {ECO:0000250|UniProtKB:P62166}. Postsynaptic density {ECO:0000250|UniProtKB:P62166}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P62166}. Cytoplasm {ECO:0000250|UniProtKB:P62168}. Cell membrane {ECO:0000250|UniProtKB:P62166}; Peripheral membrane protein {ECO:0000250|UniProtKB:P62166}. Membrane {ECO:0000250|UniProtKB:P62166, ECO:0000250|UniProtKB:P62168}; Lipid-anchor {ECO:0000250|UniProtKB:P62166}. Note=Associated with Golgi stacks Post-synaptic densities of dendrites, and in the pre-synaptic nerve terminal at neuromuscular junctions. {ECO:0000250|UniProtKB:P62166}

Anti-FREQUENIN (RABBIT) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-FREQUENIN (RABBIT) Antibody - Images



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Hippocampal neurons were prepared from 17 d old NMRI mice and grown as described previously (G. Grosse et al., (2000) J. Neurosci. 20: 1869-1882). The figure shows the distribution of neuronal calcium sensor-1 (NCS-1) (red) and synaptobrevin (green) in hippocampal cell cultures after 19 d in vitro. Numerous synapses immunoreactive for synaptobrevin also show NCS-1 immunoreactivity. NCS-1 derived from invertebrate homologs has been referred to as frequenin.

Anti-FREQUENIN (RABBIT) Antibody - Background

Frequenin, or Neuronal calcium sensor, is a regulator of G protein-coupled receptor phosphorylation in a calcium dependent manner. It directly regulates GRK1 (RHOK), but not GRK2 to GRK5. It can substitute for calmodulin and it stimulates PI4KB kinase activity. It is involved in long-term synaptic plasticity through its interaction with PICK1. Ncs1 may also play a role in neuron differentiation through inhibition of the activity of N-type voltage-gated calcium channel.