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

NCS1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1551c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P62166
Other Accession	Q91614, P62168, Q8BNY6, P62167, Q2V8Y7, NP_055101.2
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB0495
Calculated MW	21879
Antigen Region	118-144

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 NCS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 118-144 amino acids from the Central region of human NCS1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	NCS1 Antibody (Center) 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}

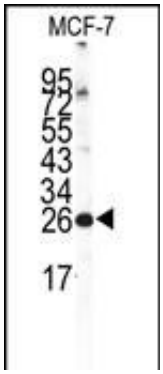
Background

NCS1 is a member of the neuronal calcium sensor gene family, which encode calcium-binding proteins expressed predominantly in neurons. NCS1 regulates G protein-coupled receptor phosphorylation in a calcium-dependent manner and can substitute for calmodulin. This protein is thought to be associated with secretory granules and may be involved in the regulation of neurosecretion.

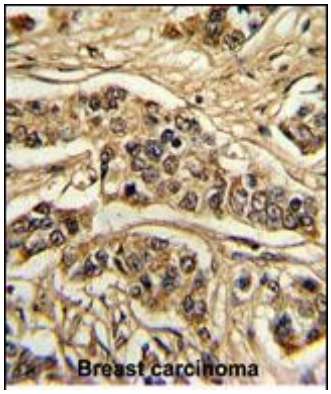
References

Koh, P.O., et al., Proc. Natl. Acad. Sci. U.S.A. 100(1):313-317 (2003).
Bourne, Y., et al., J. Biol. Chem. 276(15):11949-11955 (2001).
Burgoyne, R.D., et al., Biochem. J. 353 (Pt 1), 1-12 (2001).

Images

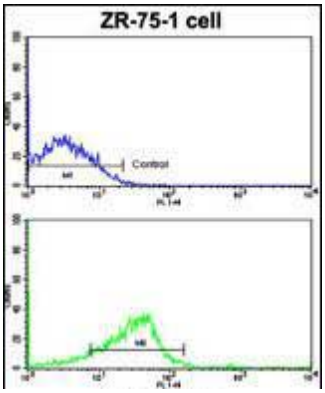


Western blot analysis of NCS1 Antibody (Center) (Cat.# AP1551c) in MCF-7 cell line lysates (35ug/lane). NCS1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma reacted with NCS1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Flow cytometric analysis of ZR-75-1 cells using NCS1



Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.