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

D4S234E Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13496a

Product Information

Application	WB, E
Primary Accession	P42857
Other Accession	P02683, Q62092, Q4R5Q3, Q8QFP1, NP_055207.1, NP_001035190.1
Reactivity	Human
Predicted	Chicken, Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33407
Calculated MW	20913
Antigen Region	31-60

Additional Information

Gene ID	27065
Other Names	Neuron-specific protein family member 1, Brain neuron cytoplasmic protein 1, NSG1, D4S234
Target/Specificity	This D4S234E antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 31-60 amino acids from the N-terminal region of human D4S234E.
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	D4S234E Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NSG1 (HGNC:18790)
Function	Plays a role in the recycling mechanism in neurons of multiple receptors, including AMPAR, APP and L1CAM and acts at the level of early endosomes to

promote sorting of receptors toward a recycling pathway. Regulates sorting and recycling of GRIA2 through interaction with GRIP1 and then contributes to the regulation of synaptic transmission and plasticity by affecting the recycling and targeting of AMPA receptors to the synapse (By similarity). Is required for faithful sorting of L1CAM to axons by facilitating trafficking from somatodendritic early endosome or the recycling endosome (By similarity). In an other hand, induces apoptosis via the activation of CASP3 in response to DNA damage (PubMed:20599942, PubMed:20878061).

Cellular Location

Membrane {ECO:0000250|UniProtKB:P02683}; Single- pass type II membrane protein {ECO:0000250|UniProtKB:P02683}. Golgi apparatus, trans-Golgi network membrane {ECO:0000250|UniProtKB:P02683} Endosome membrane {ECO:0000250|UniProtKB:P02683}. Cell projection, dendrite {ECO:0000250|UniProtKB:P02683}. Early endosome membrane {ECO:0000250|UniProtKB:P02683}. Late endosome membrane {ECO:0000250|UniProtKB:P02683}. Lysosome lumen {ECO:0000250|UniProtKB:P02683}. Recycling endosome membrane {ECO:0000250|UniProtKB:P02683}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P02683}. Golgi apparatus, Golgi stack membrane {ECO:0000250|UniProtKB:P02683}. Endosome, multivesicular body membrane {ECO:0000250|UniProtKB:P02683}. Endoplasmic reticulum membrane. Note=Endocytosed from the cell surface, thus enters into early endosomes, trafficks to late endosomes and degradates in lysosomes (By similarity). Endoplasmic reticulum targeting is essential for apoptosis (PubMed:20599942). Found in both stationary and motile endosomes. A previous study supports a type I membrane protein topology (By similarity) {ECO:0000250|UniProtKB:P02683, ECO:0000250|UniProtKB:Q62092, ECO:0000269|PubMed:20599942}

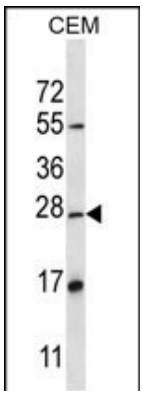
Background

The specific function of the protein remains unknown.

References

Kudoh, T., et al. Exp. Cell Res. 316(17):2849-2858(2010)
Steiner, P., et al. J. Cell Biol. 157(7):1197-1209(2002)
Carlock, L., et al. Brain Res. Mol. Brain Res. 42(2):202-212(1996)

Images



D4S234E Antibody (N-term) (Cat. #AP13496a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the D4S234E antibody detected the D4S234E protein (arrow).