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HOMER3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6992c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q9NSC5
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21915
Calculated MW	39836
Antigen Region	281-308

Additional Information

Gene ID	9454
Other Names	Homer protein homolog 3, Homer-3, HOMER3
Target/Specificity	This HOMER3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 281-308 amino acids from the Central region of human HOMER3.
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 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	HOMER3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HOMER3 (HGNC:17514)
Function	Postsynaptic density scaffolding protein. Binds and cross- links cytoplasmic regions of GRM1, GRM5, ITPR1, DNM3, RYR1, RYR2, SHANK1 and SHANK3. By physically linking GRM1 and GRM5 with ER- associated ITPR1 receptors, it aids

	the coupling of surface receptors to intracellular calcium release. Isoforms can be differently regulated and may play an important role in maintaining the plasticity at glutamatergic synapses. Negatively regulates T cell activation by inhibiting the calcineurin-NFAT pathway. Acts by competing with calcineurin/PPP3CA for NFAT protein binding, hence preventing NFAT activation by PPP3CA (PubMed:18218901).
Cellular Location	Cytoplasm. Postsynaptic density. Synapse. Note=Postsynaptic density of neuronal cells.

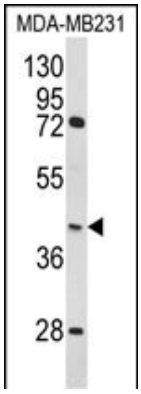
Background

HOMER3 is a member of the HOMER family of postsynaptic density scaffolding proteins that share a similar domain structure consisting of an N-terminal Enabled/vasodilator-stimulated phosphoprotein homology 1 domain which mediates protein-protein interactions, and a carboxy-terminal coiled-coil domain and two leucine zipper motifs that are involved in self-oligomerization. This protein binds numerous other proteins including group I metabotropic glutamate receptors,inositol 1,4,5-trisphosphate receptors and amyloid precursor proteins and has been implicated in diverse biological functions such as neuronal signaling, T-cell activation and trafficking of amyloid beta peptides.

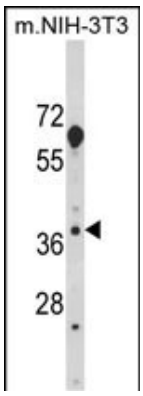
References

Norton,N., et.al., Am. J. Med. Genet. B Neuropsychiatr. Genet. 120B (1), 18-21 (2003)

Images

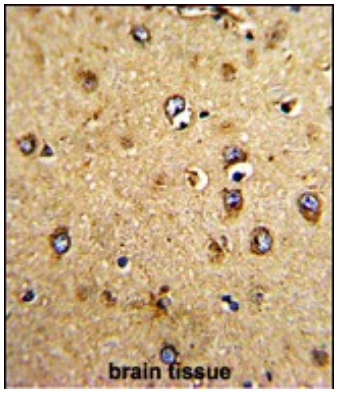


Western blot analysis of HOMER3 Antibody (Center) (Cat. #AP6992c) in MDA-MB231 cell line lysates (35ug/lane).HOMER3 (arrow) was detected using the purified Pab.

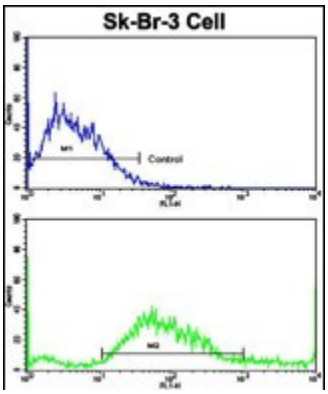


Western blot analysis of HOMER3 Antibody (Center) (Cat. #AP6992c) in mouse NIH-3T3 cell line lysates (35ug/lane).HOMER3 (arrow) was detected using the purified Pab.

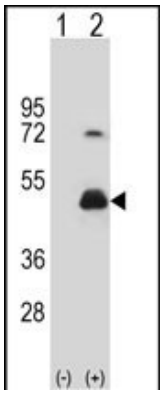
Formalin-fixed and paraffin-embedded human brain tissue with HOMER3 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical



relevance has not been evaluated.



Flow cytometric analysis of SK-Br-3 cells using HOMER3 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western blot analysis of HOMER3 (arrow) using rabbit polyclonal HOMER3 Antibody (Center) (Cat. #AP6992c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the HOMER3 gene.

Citations

- Carbonic Anhydrase 8 Expression in Purkinje Cells Is Controlled by PKCγ Activity and Regulates Purkinje Cell Dendritic Growth.

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