

**HOMER1 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7302c****Specification**

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**HOMER1 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [Q86YM7](#)**HOMER1 Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 9456

**Other Names**

Homer protein homolog 1, Homer-1, HOMER1, SYN47

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7302c](/products/AP7302c) was selected from the Center region of human HOMER1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**HOMER1 Antibody (Center) Blocking Peptide - Protein Information**Name HOMER1 ([HGNC:17512](#))**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. May also couple GRM1 to PI3 kinase through its interaction with AGAP2. Isoform 1 regulates the trafficking and surface expression of GRM5. Isoform 3 acts as a natural dominant negative, in dynamic competition with constitutively expressed isoform 1 to regulate synaptic metabotropic glutamate function. Isoform 3, may be involved in the structural changes that occur at synapses during long-lasting neuronal plasticity and development. Forms a high-order complex with SHANK1, which in turn is necessary for the structural and functional integrity of dendritic spines (By similarity). 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:<http://www.uniprot.org/citations/18218901>)

target="\_blank">18218901</a>).

**Cellular Location**

Cytoplasm. Postsynaptic density. Synapse. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q9Z214}. Note=Isoform 1 inhibits surface expression of GRM5 causing it to be retained in the endoplasmic reticulum.

**HOMER1 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**HOMER1 Antibody (Center) Blocking Peptide - Images****HOMER1 Antibody (Center) Blocking Peptide - Background**

HOMER1 is a member of the homer family of dendritic proteins. Members of this family regulate group 1 metabotropic glutamate receptor function.

**HOMER1 Antibody (Center) Blocking Peptide - References**

Sanna,S., Jackson,A.U. Nat. Genet. 40 (2), 198-203 (2008)Dahl,J.P., Kampman,K.M. Psychiatr. Genet. 15 (4), 277-283 (2005)Tu,J.C., Xiao,B. Neuron 23 (3), 583-592 (1999)