

**HOMER1 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7302a**

**Specification**

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**HOMER1 Antibody (N-term) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">Q86YM7</a>
Other Accession	<a href="#">Q9Z214</a> , <a href="#">Q9Z2Y3</a> , <a href="#">Q2KJ56</a>
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40277
Antigen Region	96-122

**HOMER1 Antibody (N-term) - Additional Information**

**Gene ID** 9456

**Other Names**

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

**Target/Specificity**

This HOMER1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 96-122 amino acids from the N-terminal region of human HOMER1.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50

**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**

HOMER1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**HOMER1 Antibody (N-term) - Protein Information**

**Name** HOMER1 ([HGNC:17512](#))

**Function** Postsynaptic density scaffolding protein. Binds and cross- links cytoplasmic regions of GRM1, GRM5, ITPR1, DNMT3, 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:[18218901](#)).

#### Cellular Location

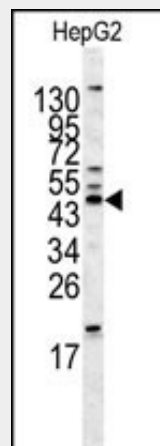
Cytoplasm. Postsynaptic density. Synapse. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q9Z214}. Note=Isoform 1 inhibits surface expression of GRM5 causing it to be retained in the endoplasmic reticulum.

#### HOMER1 Antibody (N-term) - Protocols

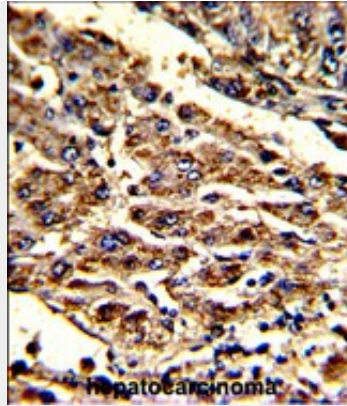
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

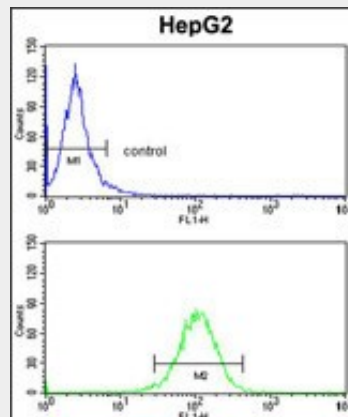
#### HOMER1 Antibody (N-term) - Images



Western blot analysis of HOMER1 antibody (N-term) (Cat.#AP7302a) in HepG2 cell line lysates (35ug/lane). HOMER1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma with HOMER1 Antibody (N-term), 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.



HOMER1 Antibody (N-term) (Cat.#AP7302a) flow cytometry analysis of HepG2 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

**HOMER1 Antibody (N-term) - 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 (N-term) - 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)