

# Datasheet for ABIN7565306 **HOMER1 Protein (AA 1-366) (His tag)**



#### Overview

Quantity:	1 mg
Target:	HOMER1
Protein Characteristics:	AA 1-366
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HOMER1 protein is labelled with His tag.

### **Product Details**

Purpose:	Custom-made recombinant Homer1 Protein expressed in mammalian cells.
Sequence:	MGEQPIFSTR AHVFQIDPNT KKNWVPTSKH AVTVSYFYDS TRNVYRIISL DGSKAIINST
	ITPNMTFTKT SQKFGQWADS RANTVYGLGF SSEHHLSKFA EKFQEFKEAA RLAKEKSQEK
	MELTSTPSQE SAGGDLQSPL TPESINGTDD ERTPDVTQNS EPRAEPTQNA LPFPHSAGDR
	TQALSHASSA ISKHWEAELA TLKGNNAKLT AALLESTANV KQWKQQLAAY QEEAERLHKR
	VTELECVSSQ ANAVHSHKTE LNQTVQELEE TLKVKEEEIE RLKQEIDNAR ELQEQRDSLT
	QKLQEVEIRN KDLEGQLSDL EQRLEKSQNE QEAFRSNLKT LLEILDGKIF ELTELRDNLA KLLECS
	Sequence without tag. The proposed Purification-Tag is based on experiences with the
	expression system, a different complexity of the protein could make another tag necessary
	In case you have a special request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:

- · Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- · State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

Grade:

custom-made

### Target Details

Alternative Name:

Homer1 (HOMER1 Products)

Background:

Homer protein homolog 1 (Homer-1) (VASP/Ena-related gene up-regulated during seizure and LTP 1) (VesI-1),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. Differentially regulates the functions of the calcium activated channel ryanodine receptors RYR1 and RYR2. Isoform 1 decreases the activity of RYR2, and increases the activity of RYR1, whereas isoform 5 counteracts the effects by competing for binding sites. Isoform 3 regulates the trafficking and surface expression of GRM5. Isoform 5 acts as a natural dominant negative, in dynamic competition with constitutively expressed isoform 1, isoform 2 and isoform 3 to regulate synaptic metabotropic glutamate function. Isoform 5, may be involved in the structural changes that occur at synapses during long-lasting neuronal plasticity and development (By similarity). Forms a high-order complex with SHANK1, which in turn is necessary for the

Target Details	
	structural and functional integrity of dendritic spines (By similarity). Negatively regulates T cel
	activation by inhibiting the calcineurin-NFAT pathway. Acts by competing with
	calcineurin/PPP3CA for NFAT protein binding, hence preventing NFAT activation by PPP3CA
	(By similarity). {ECO:0000250, ECO:0000250 UniProtKB:Q86YM7,
	ECO:0000250 UniProtKB:Q9Z214}.
Molecular Weight:	41.4 kDa
UniProt:	Q9Z2Y3
Pathways:	Skeletal Muscle Fiber Development
Application Details	
Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for
	functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only
Handling	

## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months