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#8231

Homer1 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 46	Source/Isotype: Rabbit	UniProt ID: #Q86YM7	Entrez-Gene Id: 9456
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Homer1 Antibody detects endogenous levels of total Homer1 protein. This antibody may also detect isoform Homer1c.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu130 of human Homer1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Homer1, Homer2 and Homer3 are scaffolding proteins, composed of an EVH protein-binding domain, a coiled-coil domain and a leucine zipper domain. The EVH domain is a protein-protein binding module that binds to the proline-rich motifs PPXXF, PPDF, and LPSSP of G protein-coupled receptors (GPCRs), inositol 1,4,5-triphosphate (IP3) receptors (IP3Rs), ryanodine receptors, and TRP channels (1-2). The coiled-coil and the leucine zipper domains cause multimerization of Homers and assemble signaling proteins complexes. The Homer1 gene encodes a short isoform (Homer1a, aa 1-186) and two long isoforms (Homer1b, aa 1-354; Homer1c, aa 1-366). Homer1a lacks the coiled-coil domain and leucine zipper, antagonizing multimerization of Homers and thus disassembling signaling proteins complexes (3).

Background References

1. Fagni, L. et al. (2002) *Sci STKE* 2002, re8.
2. Yuan, J.P. et al. (2003) *Cell* 114, 777-89.
3. Xiao, B. et al. (2000) *Curr Opin Neurobiol* 10, 370-4.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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