



Homer is primarily localized at a postsynapse in neural cell, and acts as an adaptor protein for several synaptic molecules. Each Homer type is expressed in specific cells, respectively. Homer is identified to link multiple targets, such as type 1 metabotropic glutamate receptors, IP3 receptors, shank, etc., and known to be concerned with morphology and function of postsynapse. In addition, Homer is identified to be expressed in some non-neuronal cells.

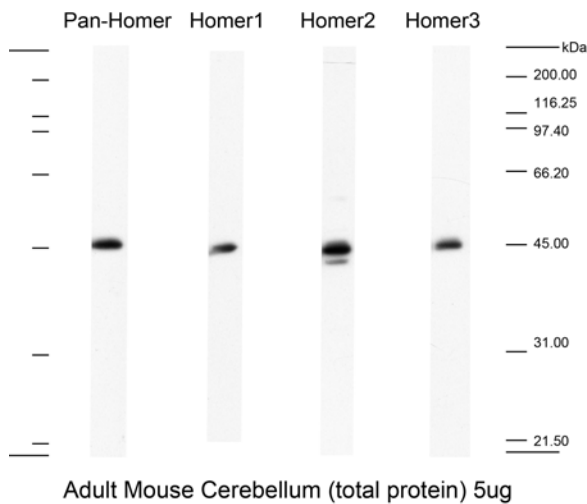


Fig. 1 Western Blot analysis

After 5 μ g of Adult Mouse Cerebellum (total protein) was electrophoresed and transferred to membranes, each Homer family proteins was detected specifically by using corresponded anti-Homer antibodies.

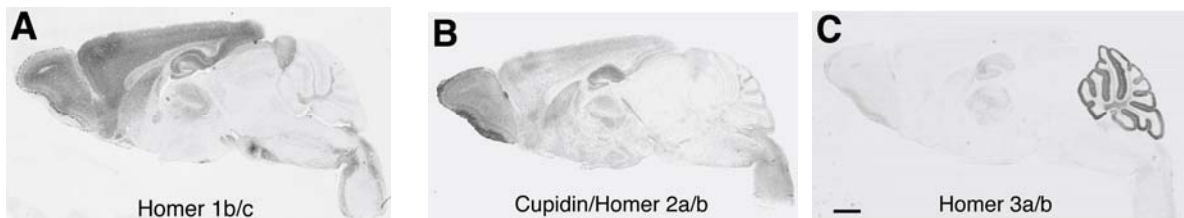


Fig. 2 Immunohistochemical analysis

Immunohistochemical distribution of the Homer family proteins Homer 1b/c (A), Cupidin/Homer 2a/b (B), and Homer 3a/b (C) in parasagittal sections of P14 mouse brains. Scale bar = 1mm.

Y. Shiraishi et al.

J. Comp. Neurol. 473 : 582-599 (2004)

Anti Homer 1 polyclonal antibody

Catalog No. CAC-RIK-B-H1

Lot number	H104-01
Host animal	Rabbit
Immunogen	Mouse Homer 1
Purity	Immunogen affinity purified
Specificity	Homer 1, not react Homer 2 and 3 *Using with too high concentration might cause a loss of antibody's specificities.
Volume (Concentration)	50 µl (0.14 mg/ml)
Formulation	PBS (pH7.4) with 0.05% NaN ₃ as a preservative, 20% glycerol, and 1mg/ml of BSA.
Cross Reactivity	Rat, Human cultured cell
Application/ Recommended concentration	• Western Blot: 1/5,000. Predicted molecular weight: 45 kDa • Immunohistochemistry: 1/1,000 • Other applications: not tested yet.
Storage	Store below -20°C (below -70°C for prolonged storage). Aliquot to avoid cycles of freeze/thaw.
Reference	<ol style="list-style-type: none">1. Shiraishi-Yamaguchi, Y. and Furuichi, T. (2007) The Homer family proteins. <i>Genome Biology</i> 8:206.1-206.12.2. Shiraishi Y, Mizutani A, Yuasa S, Mikoshiba K, Furuichi T. (2004) Differential expression of Homer family proteins in the developing mouse brain. <i>J. Comp. Neurol.</i> 473:582-599.3. Shiraishi Y, Mizutani A, Yuasa S, Mikoshiba K, Furuichi T. (2003) Glutamate-induced declustering of post-synaptic adaptor protein Cupidin (Homer 2/vesl-2) in cultured cerebellar granule cells. <i>J. Neurochem.</i> 87:364-376.4. Shiraishi Y, Mizutani A, Mikoshiba K, Furuichi T. (2003) Coincidence in dendritic clustering and synaptic targeting of homer proteins and NMDA receptor complex proteins NR2B and PSD95 during development of cultured hippocampal neurons. <i>Mol. Cell. Neurosci.</i> 22:188-201.5. Shiraishi Y, Mizutani A, Bito H, Fujisawa K, Narumiya S, Mikoshiba K, Furuichi T. (1999) Cupidin, an isoform of Homer/Vesl, interacts with the actin cytoskeleton and activated rho family small GTPases and is expressed in developing mouse cerebellar granule cells. <i>J. Neurosci.</i> 19:8389-8400.

For research use only; not for use as a diagnostic.



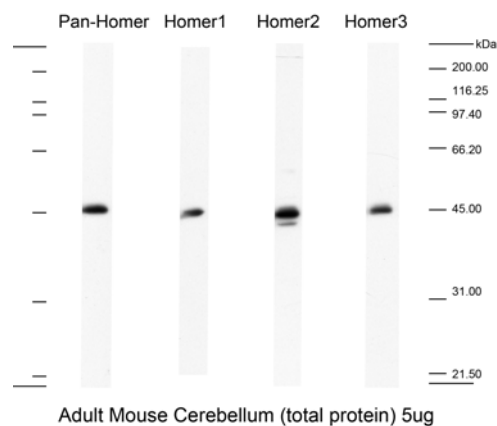
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Specificity	Homer 1, not react Homer 2 and 3
Concentration	0.14 mg/ml
Volume	50 ul
Formulation	PBS (pH7.4) with 0.05% NaN ₃ as a preservative, 20% glycerol, and 1mg/ml of BSA.
Cross Reactivity	Rat, Human cultured cell

Application/
Recommended concentration

• **Western Blot:** 1/5000. Predicted molecular weight: 45 kDa



• **Immunohistochemistry:** 1/1,000

• **Immunoprecipitation:** not tested

• **ELISA:** not tested

• **Flow cytometry:** not tested





Storage

Store below -20°C (below -70°C for prolonged storage).
Aliquot to avoid cycles of freeze/thaw.

Reference

1. Shiraishi-Yamaguchi, Y. and Furuichi, T. (2007) The Homer family proteins. *Genome Biology* 8:206.1-206.12.
 2. Shiraishi Y, Mizutani A, Yuasa S, Mikoshiba K, Furuichi T. (2004) Differential expression of Homer family proteins in the developing mouse brain. *J. Comp. Neurol.* 473:582-599.
 3. Shiraishi Y, Mizutani A, Yuasa S, Mikoshiba K, Furuichi T. (2003) Glutamate-induced declustering of post-synaptic adaptor protein Cupidin (Homer 2/vesl-2) in cultured cerebellar granule cells. *J. Neurochem.* 87:364-376.
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本製品は、独立行政法人理化学研究所 RIKEN の研究成果の利用許諾を受けています。

Homer は、主に神経細胞のポストシナプスに局在し、各種シナプス分子の足場タンパク質として機能する。各 **Homer** タイプは特異的な細胞に発現する。グループ I 代謝型グルタミン酸受容体、IP3 受容体、**shank** などと結合し、ポストシナプスの機能や形態に関与することが知られている。一部の非神経系細胞での発現も知られている。

