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Inspiration for Life Science

POLYCLONAL ANTIBODY

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Catalog No. RIK-B-H1

Anti Homer 1

BACKGROUND
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.

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。

Product type	Primary antibodies
Host	Rabbit
Source	Serum
Form	Liquid Immunogen affinity purified PBS (pH7.4) with 0.05% NaN3 as a preservative, 20% glycerol, and 1mg/ml of BSA.
Volume	50 µl
Concentration	0.14 mg/ml
Specificity	Homer 1, not react Homer 2 and 3 * Using with too high concentration might cause a loss of antibody's specificities.
Antigen	Mouse Homer 1
Isotype	IgG

Application notes WB, IHC Other applications: not tested yet.

Recommended use

Recommended dilutions
Western Blot: 1/5,000. Predicted molecular weight: 45 kDa
Immunohistochemistry: 1/1,000

Optimal dilutions/concentrations should be determined by the end user.

Staining Pattern

Cross reactivity Rat, Human cultured cell

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

References

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.

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. Mol. Cell. Neurosci. 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. J. Neurosci. 19:8389-8400.

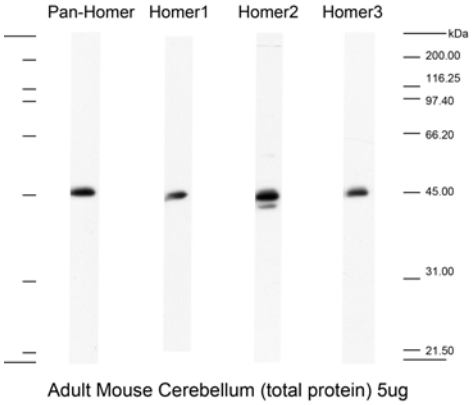

Fig. 1 Western Blot analysis
After 5µg of Adult Mouse Cerebellum (total protein) was electrophoresed and transferred to membranes, each Homer family proteins was detected specifically by using corresponded anti-Homer antibodies.

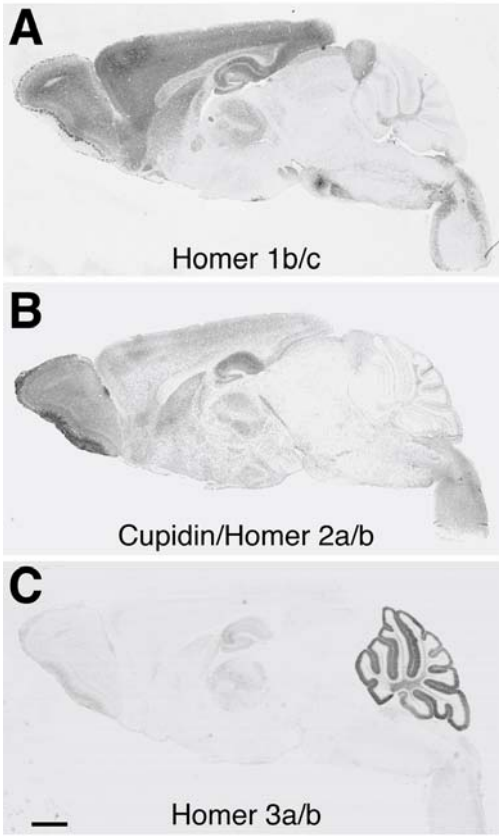

Fig. 2 Immunohistochemical analysis
Immunohistochemical
distribution of the Homer family proteins Homer 1b/c (A), Cupidin/Homer 2a/b (B), and Homer 3a/b (C) in parasagittal sections of P14 mouse brains. Scale bar = 1mm.

Y. Shiraishi et al.
J. Comp. Neurol. 473 : 582-599 (2004)

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TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN
URL: http://www.cosmobio.co.jp e-mail: export@cosmobio.co.jp
[Outside Japan] Phone : +81-3-5632-9617 [国内連絡先] Phone : +81-3-5632-9610
FAX : +81-3-5632-9618 FAX : +81-3-5632-9619