Anti-GluA1 (GluR1)

(AMPA-type glutamate receptor subunit-1)

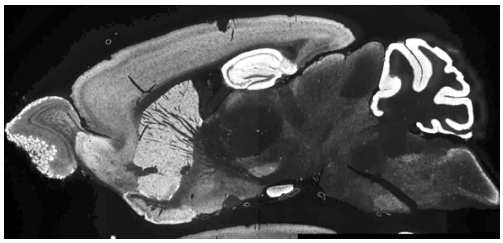
Code Number : GluA1-Rb-Af690 (rabbit, RRID : AB_2571752)
: GluA1-GP-Af380 (guinea pig, RRID : AB_2571753)

Size : 20 μg and 50 μg / See label on vial
(affinity-purified with antigen polypeptide)

Formulation : Liquid ; 200 μg/ml in PBS with 0.05% NaN_3.

Storage : Store at 4˚C. The antibody can be stored at 4˚C. The antibody can be also aliquotted and stored at -80˚C for long-term storage. Avoid repeated freeze-thawing. Non-hazardrous. No MSDS required.

Species : rabbit / guinea pig, polyclonal



Antigen : mouse GluA1, (X57497)
841-907 aa, GFCLIPQQSINEAIRTST
LPRNSGAGASGGSGSGENGRVVSQD
FPKSMQSIPCMSHSSGMPLGATGL

Specificity : mouse (others not tested)
Immunoblot detects a single protein band at 100kDa, with no cross reactivity to other iGluR subunits. Lack of signal in GluA1-KO brain.

Applications : In general, affinity-purified antibody is used at around 1 microgram/ml for immunoblot and immunohistochemistry. The most appropriate concentration should be determined by users, because it depends on contents in given cells, tissues and organs.

Research Use : For research use only, not for use in diagnostic procedures.

Remarks : For immunohistochemistry for neuronal iGluRs, users should adopt postembedding immunogold for electron microscopic detection and protease predigestion for light microscopic detection (see the below reference). For gliali GluR, these antigen-exposing methods are not necessary (unpublished information).

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Reference : 1) Watanabe, M., Fukaya, M., Sakimura, K., Manabe, T., Mishina, M., and Inoue, Y. (1998) Selective scarcity of NMDA receptor channel subunits in the stratum lucidum (mossy fiber-recipient layer) of the hippocampal CA3 subfield. **Eur. J. Neurosci.** 10:478-487.

2) Shimuta, M., Yoshikawa, M., Fukaya, M., Watanabe, M., Takeshima, H., Manabe, T. (2001) Postsynaptic modulation of AMPA receptor-mediated synaptic responses and LTP by the type 3 ryanodine receptor. **Mol. Cell Neurosci**. 17:921-930.

3) Fukaya,M., Tsujita, M., Yamazaki, M., Kushiya, E., Abe, M., Akashi, K., Natsume, R., Kano, M., Kamiya, H., Watanabe,M.*, Sakimura, K. Abundant distribution of TARP γ-8 in synaptic and extrasynaptic surface of hippocampal neurons and its major role in AMPA receptor expression on spines and dendrites. **Eur. J. Neurosci**., 24:2177-2190.

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