

Grik1 (IN) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat Grik1 (IN)

Instruction Manual

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| Catalog Number | PK-AB718-4383 |
| Synonyms | Grik1 Antibody: Glutamate receptor ionotropic kainate 1, glutamate receptor 5, gluR5, excitatory amino acid receptor 3, eea3 |
| Description | Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. Grik1, also known as glutamate receptor 5, belongs to the kainate family of glutamate receptors, which are composed of four subunits and function as ligand-activated ion channels. Grik1 is expressed in GABAergic interneurons of the hippocampus and are thought to participate in the formation of various subtypes of kainate receptors with Grik2 and KA2. Stimulation of Grik1 leads to intracellular calcium release and activation of protein kinase C. Excessive activation has been associated with psychiatric, neurological and neurodegenerative diseases. Numerous isoforms of Grik1 are known to exist and may be subject to RNA editing within the second transmembrane domain, which is thought to alter the properties of ion flow. |
| Quantity | 100 µg |
| Source / Host | Rabbit |
| Immunogen | Grik1 antibody was raised in rabbits against a 16 amino acid peptide near the center of the human Grik1. |
| Purification Method | Affinity chromatography purified via peptide column. |
| Clone / IgG Subtype | Polyclonal antibody |
| Species Reactivity | Human, Mouse, Rat |
| Specificity | |
| Formulation | Antibody is supplied in PBS containing 0.02% sodium azide. |
| Reconstitution | During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap. |
| Storage & Stability | Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Applications | E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. Grik1 antibody can be used for detection of Grik1 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL. |
| Images | Available upon request. |
| References | Tanaka K. Functions of glutamate transports in the brain. <i>Neurosci. Res.</i> 2000; 37:15-9. Pinheiro P and Mulle C. Kainate receptors. <i>Cell Tissue Res.</i> 2006; 326:457-82. Bureau I, Dieudonne S, Coussen F, et al. Kainate receptor-mediated responses in the CA1 field of wild-type and GluR6-deficient mice. <i>J. Neurosci.</i> 1999; 19:653-63. Christensen JK, Paternain AV, Selak S, et al. A mosaic of functional kainate receptors in hippocampal interneurons. <i>J. Neurosci.</i> 2004; 24:8986-93. |
| Images | Available upon request. |
| Related Products | Cat.No. PK-AB718-4383P; Grik1 Peptide Cat.No. PK-AB718-1463; Rat Brain Tissue Lysate |

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