

# Grik5 antibody (pAb)

Rabbit Anti-Human/Mouse/Rat Grik5

## Instruction Manual

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| <b>Catalog Number</b>          | PK-AB718-4397   |
| <b>Synonyms</b>                | Grik5 Antibody: Grik5, Glutamate receptor ionotropic kainate 5, KA2, excitatory amino acid receptor 2, eea2   |
| <b>Description</b>             | Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. Grik5, also known as kainate-preferring glutamate receptor subunit KA2, belongs to the kainate family of glutamate receptors, which are composed of four subunits and function as ligand-activated ion channels. Grik5 is highly homologous to the related ionotropic glutamate receptor Grik4 (also known as KA1). Like Grik4, Grik5 does not form homomeric channels, but instead forms heteromers with Grik2. In Grik2- but not Grik1-null mice, Grik5 surface expression is greatly reduced in neurons, indicating that Grik2/Grik5 heteromers are required for exit from the endoplasmic reticulum to the cell surface. This Grik5 antibody does not cross-react with Grik4. |
| <b>Quantity</b>                | 100 µg  |
| <b>Source / Host</b>           | Rabbit  |
| <b>Immunogen</b>               | Grik5 antibody was raised in rabbits against a 17 amino acid peptide near the carboxy terminus of the human Grik5.  |
| <b>Purification Method</b>     | Affinity chromatography purified via peptide column.  |
| <b>Clone / IgG Subtype</b>     | Polyclonal antibody   |
| <b>Species Reactivity</b>      | Human, Mouse, Rat   |
| <b>Specificity</b>             | This Grik5 antibody does not cross-react with Grik4.  |
| <b>Formulation</b>             | Antibody is supplied in PBS containing 0.02% sodium azide.  |
| <b>Reconstitution</b>          | 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.   |
| <b>Storage &amp; Stability</b> | 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.  |
| <b>Applications</b>            | 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.<br><br>Grik5 antibody can be used for detection of Grik5 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.  |
| <b>Images</b>                  | Available upon request.   |
| <b>References</b>              | Tanaka K. Functions of glutamate transports in the brain. <i>Neurosci. Res.</i> 2000; 37:15-9.<br><br>Herb A, Burnashev N, Werner P, et al. The KA-2 subunit of excitatory amino acid receptors shows widespread expression in brain and forms ion channels with distantly related subunits. <i>Neuron</i> 1992; 8:775-85.<br><br>Pinheiro P and Mulle C. Kainate receptors. <i>Cell Tissue Res.</i> 2006; 326:457-82.<br><br>Nasu-Nishimura Y, Hurtado D, Braud S, et al. Tification of an endoplasmic reticulum-retention motif in an intracellular loop of the kainate receptor subunit KA2. <i>J. Neurosci.</i> 2006; 26:7014-21.   |
| <b>Images</b>                  | Available upon request.   |
| <b>Related Products</b>        | Cat.No. PK-AB718-4397P; Grik5 Peptide<br><br>Cat.No. PK-AB718-1303; Human Brain Tissue Lysate   |

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