

Product datasheet for **TA306499**

KA1 (GRIK4) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 0.5 - 2 ug/mL, ICC: 2.5 ug/mL, IF: 20 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Grik4 antibody was raised against a 14 amino acid peptide near the amino terminus of the human Grik4.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	glutamate ionotropic receptor kainate type subunit 4
Database Link:	NP_055434 Entrez Gene 24406 Rat Entrez Gene 110637 Mouse Entrez Gene 2900 Human Q16099



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Background:

Grik4 codes for the KA1 subunit of kainate-type ionotropic glutamate receptors which are critical regulators of network activity that act by modifying neuronal excitability, directly and indirectly, through GABAergic interneurons. Five subunits can assemble to form kainate receptors (KARs): GluR5 (coded by Grik1), GluR6 (coded by Grik2), and GluR7 (coded by Grik3) are the low-affinity subunits, and KA1 and KA2 are the high-affinity subunits. In the adult brain, KARs are located pre- and postsynaptically on pyramidal cells and on interneurons. Kainate receptors on GABA-containing interneurons enhance GABA release and thereby downregulate glutamatergic signaling. KARs have been implicated in numerous psychiatric disorders. Case control studies show significant association of Grik4 with both schizophrenia and bipolar disorder. Despite its predicted molecular weight, Grik4 often migrates at a lower molecular weight in SDS-PAGE.

Synonyms:

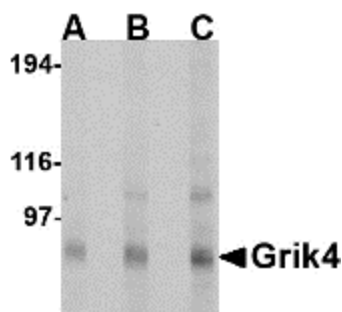
EAA1; GluK4; GRIK; KA1

Protein Families:

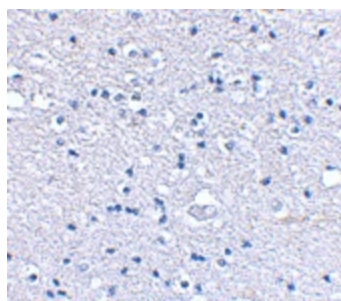
Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways:

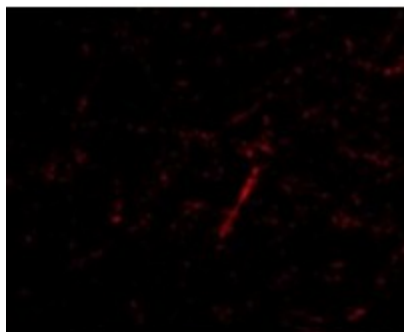
Neuroactive ligand-receptor interaction

Product images:

Western blot analysis of Grik4 in Rat brain tissue lysate with Grik4 antibody at (A) 0.5, (B) 1 and (C) 2 ug/ml.



Immunohistochemical staining of human brain tissue using Grik4 antibody at 2.5 ug/ml.



Immunofluorescence of Grik4 in Human Brain cells with Grik4 antibody at 20 ug/mL.