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www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-BN9

GRIK4 Antibody

Overview

Description:	Anti-GRIK4 (RABBIT) Antibody - 600-401-BN9
Item No.:	600-401-BN9
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

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.
Synonyms:	Grik4 Antibody, KA1, EAA1, GRIK, GluK4, Glutamate receptor ionotropic, kainate 4, Excitatory amino acid receptor 1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GRIK4
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Grik4 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 14 amino acid synthetic peptide near the N-terminus of the human Grik4.
Purity/Specificity:	Anti-Grik4 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Grik4 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q16099 • GeneID - 2900 • NCBI - NP_001269399.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Grik4 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 107 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000 - 1:20,000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	0.5-2 µg/mL

Formulation

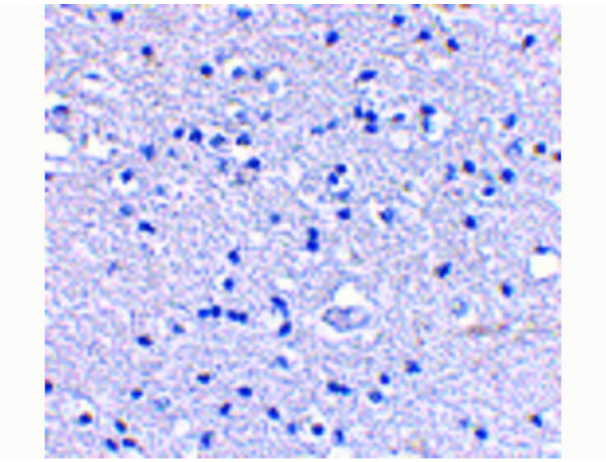
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

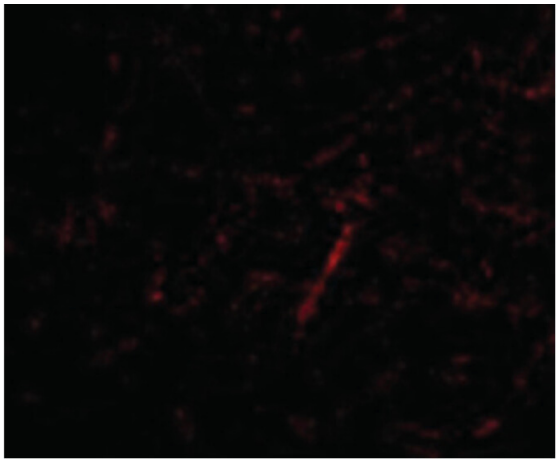
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

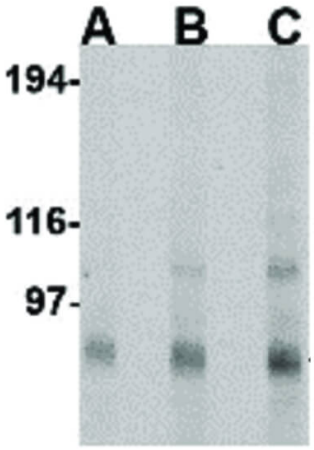
Images



Immunohistochemistry
Immunohistochemistry of Grik4 antibody. Tissue: Human brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Grik4 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Grik4 is nuclear and occasionally cytoplasmic. Staining: Grik4 as precipitated red signal with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Grik4 antibody. Tissue: Human Brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Grik4 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: Grik4 as a red fluorescent signal.



Western Blot

Western Blot of Grik4 antibody. Lane A: Rat brain tissue lysate at 0.5 µg/mL. Lane B: Rat brain tissue lysate at 1 µg/mL. Lane C: Rat brain tissue lysate at 2 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 107.2 kDa, ~85 kDa for Grik4. Other band(s): Grik4 splice variants and isoforms.

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