

Product datasheet

Anti-GRIK2/GluK2 antibody ab28697

1 Image

Overview

Product name	Anti-GRIK2/GluK2 antibody
Description	Rabbit polyclonal to GRIK2/GluK2
Host species	Rabbit
Specificity	ab28697 recognises Glutamate receptor, ionotropic kainate 2 precursor (GRIK2).
Tested applications	Suitable for: WB, ELISA
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Cow, Dog, Chimpanzee 
Immunogen	Synthetic peptide derived from a region between 156-205 of human GRIK2. (Note: the exact amino acid sequence is proprietary).
Positive control	Jurkat Cell Lysate

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab28697 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes

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WB		Use a concentration of 2.5 µg/ml. Detects a band of approximately 88 kDa (predicted molecular weight: 103 kDa). Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.
ELISA		1/62500.

Target

Function

Ionotropic glutamate receptor. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist. May be involved in the transmission of light information from the retina to the hypothalamus. Modulates cell surface expression of NETO2.

Tissue specificity

Expression is higher in cerebellum than in cerebral cortex.

Involvement in disease

Defects in GRIK2 are the cause of mental retardation autosomal recessive type 6 (MRT6) [MIM:611092]. It is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period. In contrast to syndromic or specific mental retardation which also present with associated physical, neurological and/or psychiatric manifestations, intellectual deficiency is the only primary symptom of non-syndromic mental retardation. MRT6 patients display mild to severe mental retardation and psychomotor development delay in early childhood. Patients do not have neurologic problems, congenital malformations, or facial dysmorphism. Body height, weight, and head circumference are normal.

Sequence similarities

Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIK2 subfamily.

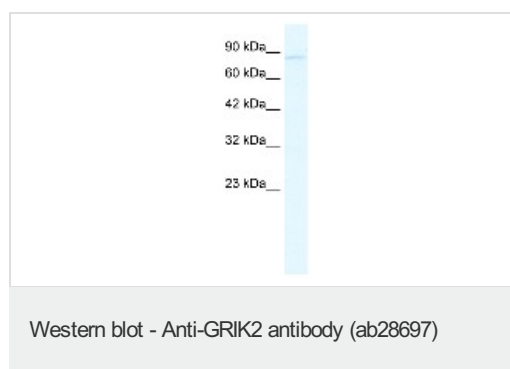
Post-translational modifications

Sumoylation mediates kainate receptor-mediated endocytosis and regulates synaptic transmission. Sumoylation is enhanced by PIAS3 and desumoylated by SENP1. Ubiquitinated. Ubiquitination regulates the GRIK2 levels at the synapse by leading kainate receptor degradation through proteasome.

Cellular localization

Cell membrane. Cell junction > synapse > postsynaptic cell membrane.

Images



Anti-GRIK2/GluK2 antibody (ab28697) at 2.5 µg/ml + Jurkat cell lysate

Secondary

HRP conjugated anti-Rabbit IgG

Predicted band size: 103 kDa

Observed band size: 88 kDa

Western Blot using ab28697 at 2.5µg/ml in 5% skim milk/PBS and
and HRP conjugated anti-Rabbit IgG, diluted in 1/50,000-100,000
as second antibody and using Jurkat Cell lysate at a gel
concentration of 12%.

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