abcam

Product datasheet

Rat Lgi1/EPT peptide ab33114

Description

Product name	Rat Lgi1/EPT peptide
Animal free	No
Nature	Synthetic
Species	Rat

Specifications

Our Abpromise guarantee covers the use of **ab33114** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Form	Liquid
Additional notes	*- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.* *- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.* *- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.* *- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.* *- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.* This product was previously labelled as Lgi1

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

General Info

Function	Regulates voltage-gated potassium channels assembled from KCNA1, KCNA4 and KCNAB1. It

	slows down channel inactivation by precluding channel closure mediated by the KCNAB1 subunit. Ligand for ADAM22 that positively regulates synaptic transmission mediated by AMPA-type glutamate receptors (By similarity). Plays a role in suppressing the production of MMP1/3 through the phosphatidylinositol 3-kinase/ERK pathway. May play a role in the control of neuroblastoma cell survival.
Tissue specificity	Predominantly expressed in neural tissues, especially in brain. Expression is reduced in low-grade brain tumors and significantly reduced or absent in malignant gliomas. Isoform 1 is absent in the cerebellum and is detectable in the occipital cortex and hippocampus; higher amounts are observed in the parietal and frontal cortices, putamen, and, particularly, in the temporal neocortex, where it is 3.5 times more abundant than in the hippocampus (at protein level). Isoform 3 shows the highest expression in the occipital cortex and the lowest in the hippocampus (at protein level).
Involvement in disease	Defects in LGI1 are the cause of lateral temporal lobe epilepsy autosomal dominant (ADLTE) [MIM:600512]; also known as autosomal dominant partial epilepsy with auditory features (ADPEAF). ADLTE is a form of epilepsy characterized by partial seizures, usually preceded by auditory signs.
Sequence similarities	Contains 7 EAR repeats. Contains 3 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. Contains 1 LRRNT domain.
Post-translational modifications	Glycosylated.
Cellular localization	Secreted. Cell junction > synapse. Isoform 1 but not isoform 2 is secreted. Isoform 1 is enriched in the Golgi apparatus while isoform 2 accumulates in the endoplasmic reticulum.

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