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LGI3 Antibody

Catalog # ASC10653

Product Information

Application	WB, E
Primary Accession	Q8N145
Other Accession	AAQ88483, 37181338
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	61704
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	LGI3 antibody can be used for the detection of LGI3 by Western blot at 1 g/mL.

Additional Information

Gene ID	203190
Other Names	Leucine-rich repeat LGI family member 3, LGI1-like protein 4, Leucine-rich glioma-inactivated protein 3, LGI3, LGIL4
Target/Specificity	LGI3; Two isoforms of LGI3 are known to exist; this LGI3 antibody will recognize both. This LGI3 antibody is predicted to be specific to LGI3 and not recognize other LGI proteins. The observed higher molecular weight band may represent a post-translationally modified form of LGI3.
Reconstitution & Storage	LGI3 antibody can be stored at 4℃ for three months and -20℃, stable 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.
Precautions	LGI3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LGI3
Synonyms	LGIL4
Function	May participate in the regulation of neuronal exocytosis.
Cellular Location	Secreted. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250|UniProtKB:Q8K406}. Synapse, synaptosome {ECO:0000250|UniProtKB:Q8K406}. Cell projection, axon

	{ECO:0000250|UniProtKB:Q8K406}. Note=Found in the synaptosomal membrane fraction. Within peripheral myelinated axons, LGI3 is highly expressed at the juxtaparanodal membrane and colocalizes with the voltage-gated potassium channels Kv1.1 (KCNA1) and Kv1.2 (KCNA2), and with CNTNAP2, DLG4, ADAM22 and ADAM23 (By similarity) {ECO:0000250|UniProtKB:Q8K406}
Tissue Location	Widely expressed, with highest levels in brain and lung.

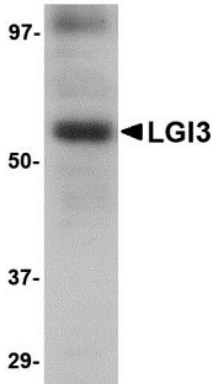
Background

LGI3 Antibody: The leucine-rich, glioma inactivated gene 3 (LGI3) is a member of the LGI family in which LGI1 is the exemplar. The LGI family consists of four of highly related proteins containing leucine-rich repeats (LRRs) which are highly similar to other transmembrane signaling molecules and receptors. LGI1 has been identified as a candidate tumor suppressor gene for glioma and plays a role in autodominant lateral temporal epilepsy (ADTLE), an epileptic syndrome characterized by focal seizures with predominant auditory symptoms. Despite its high homology with LGI1 and similar pattern of expression, mutations in LGI3 have not been found to be associated with ADTLE. LGI3 expression is induced in rat astrocyte cultures by the amyloid beta (Abeta) peptide and accumulated on neuronal plasma membranes of aged monkey brains and co-localized with Abeta.

References

Gu W, Gibert Y, Wirth T, et al. Using gene-history and expression analysis to assess the involvement of LGI genes in human disorders. Mol. Biol. Evol.2005; 22:2209-16.
Chernova OB, Somerville RP and Cowell JK. A novel gene, LGI1, from 10q24 is rearranged and downregulated in malignant brain tumors. Oncogene1998; 17:2873-81.
Berkovic SF, Izzillo P, McMahon JM, et al. LGI1 mutations in temporal lobe epilepsies. Neurology2004; 62:1115-9.
Kimura N, Ishii Y, Suzaki S, et al. Abeta upregulates and colocalizes with LGI3 in cultured rat astrocytes. Cell Mol. Neurobiol.2007; 27:335-50.

Images



Western blot analysis of LGI3 in human brain tissue lysate with LGI3 antibody at 1 µg/mL.