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LGI1 Antibody
Catalog # ASC10651

Specification

LGI1 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	O95970
Other Accession	AAQ89244, 37182888
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**LGI1 antibody can be used for the detection of LGI1 by Western blot at 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

LGI1 Antibody - Additional Information

Gene ID **9211**

Target/Specificity
LGI1; This LGI1 antibody is predicted to be specific to LGI1 and not recognize other LGI proteins.

Reconstitution & Storage
LGI1 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
LGI1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

LGI1 Antibody - Protein Information

Name LGI1

Synonyms EPT

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.

Cellular Location

Secreted. Synapse {ECO:0000250|UniProtKB:Q8K4Y5}. Cytoplasm {ECO:0000250|UniProtKB:Q9JIA1} [Isoform 2]: Endoplasmic reticulum. Cytoplasm {ECO:0000250|UniProtKB:Q9JIA1}

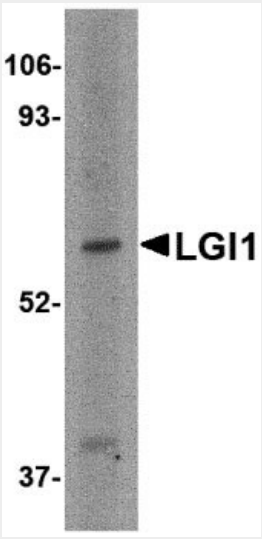
Tissue Location
Predominantly expressed in neural tissues, especially in brain. Expression is reduced in low-grade brain tumors and significantly reduced or absent in malignant gliomas [Isoform 3]: Abundantly expressed in the occipital cortex and weakly expressed in the hippocampus (at protein level)

LGI1 Antibody - Protocols

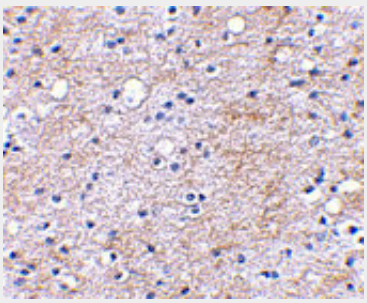
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

LGI1 Antibody - Images



Western blot analysis of LGI1 in HeLa cell lysate with LGI1 antibody at 2 µg/mL.



Immunohistochemical staining of human brain tissue using LGI1 antibody at 2.5 µg/mL.

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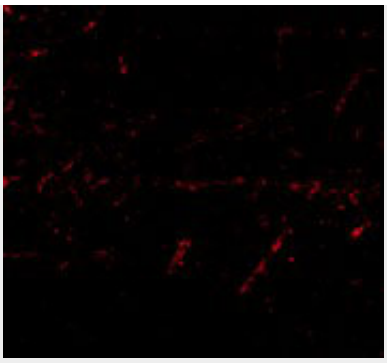

Immunofluorescence of LGI1 in Human Brain cells with LGI1 antibody at 20 µg/mL.

LGI1 Antibody - Background

LGI1 Antibody: The leucine-rich, glioma inactivated gene 1 (LGI1) was first identified as a candidate tumor suppressor gene for glioma and may play a role in other cancers. LGI1 is a member of a family of highly related proteins containing leucine-rich repeats (LRRs) which are highly similar to other transmembrane signaling molecules and receptors. LGI1 serves as a ligand to ADAM22, a metalloprotease localized at the synapse. Mutations in LGI1 account for nearly half of autodominant lateral temporal epilepsy (ADTLE), an epileptic syndrome characterized by focal seizures with predominant auditory symptoms. Two isoforms of LGI1 are known to exist; this LGI1 antibody will recognize only the longer form.

LGI1 Antibody - References

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.
Fialka F, Gruber RM, Hitt R, et al. CPA6, FMO2, LGI1, SIAT1 and TNC are differentially expressed in early- and late-stage oral squamous cell carcinoma - A pilot study. Oral Oncol.2008;
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.
Fukata Y, Adesnik H, Iwanaga T, et al. Epilepsy-related ligand/receptor complex LGI1 and ADAM22 regulate synaptic transmission. Science2006; 313:1792-5.