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LGI1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58499

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O95970
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	63818
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LGI1/ETL1
Epitope Specificity	451-557/557
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted. Cell junction, synapse (By similarity). Note=Isoform 1 but not isoform 2 is secreted. Isoform 1 is enriched in the Golgi apparatus while isoform 2 accumulates in the endoplasmic reticulum.
SIMILARITY	Contains 7 EAR repeats.Contains 3 LRR (leucine-rich) repeats.Contains 1 LRRCT domain.Contains 1 LRRNT domain
SUBUNIT	Oligomer (By similarity). Interacts with KCNA1 within a complex containing KCNA1, KCNA4 and KCNAB1 (By similarity). Part of a complex containing ADAM22, DLG4/PSD95 and CACNG2 (stargazin) (By similarity). Can bind to ADAM11 and ADAM23 (By similarity).
Post-translational modifications	Glycosylated.
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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).

Additional Information

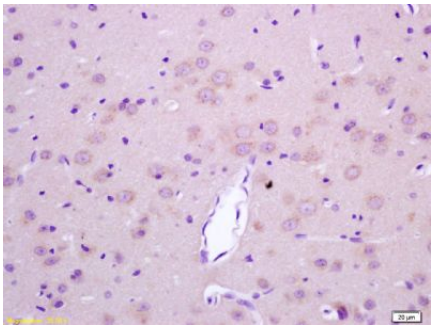
Gene ID	9211
Other Names	Leucine-rich glioma-inactivated protein 1, Epitempin-1, LGI1, EPT
Target/Specificity	Predominantly expressed in neural tissues, especially in brain. Expression is reduced in low-grade brain tumors and significantly reduced or absent in malignant gliomas. Isoform 1 is absent in 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).
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

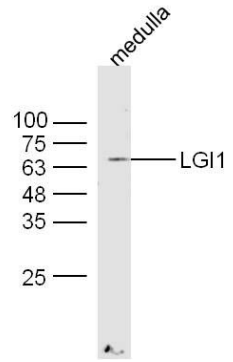
Name	LGI1
Synonyms	EPT
Function	Regulates voltage-gated potassium channels assembled from KCNA1, KCNA4 and KCNAB1. It slows down channel inactivation by precluding channel closure mediated by the KCNAB1 subunit. Ligand for ADAM22 that positively regulates synaptic transmission mediated by AMPA-type glutamate 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)

Images

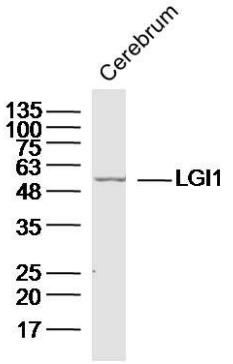
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling



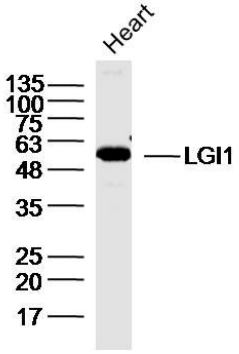
bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-LGI1/ETL1 Polyclonal Antibody, Unconjugated(AP58499) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



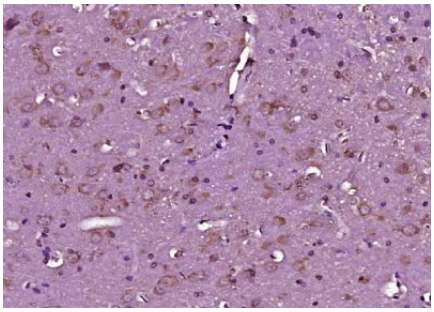
Sample: Medulla (Mouse) Lysate at 40 ug
Primary: Anti-LGI1 (AP58499) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 64 kD
Observed band size: 64 kD



Sample:Cerebrum (Mouse) Lysate at 40 ug
Primary: Anti-LGI1(AP58499)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 64kD
Observed band size: 60kD



Sample:Heart (Mouse) Lysate at 40 ug
Primary: Anti-LGI1(AP58499)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 64kD
Observed band size: 60kD



Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (LGI1) Polyclonal Antibody, Unconjugated (AP58499) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.