

LGI1 (C-19): sc-9583

BACKGROUND

As human tumors progress to advanced stages, one genetic alteration that occurs at high frequency is a loss of heterozygosity (LOH) at chromosome 10. Mapping of homozygous deletions on this chromosome led to the isolation of the PTEN (also designated MMAC1 and TEP1), DMBT1 (for deleted in malignant brain tumors 1) and LGI1 (for leucine-rich gene-glioma inactivated 1) candidate tumor suppressor genes. The PTEN gene exhibits a high frequency of mutations in human glioblastomas and is also mutated in other cancers, including sporadic brain, breast, kidney and prostate cancers. Reduced levels of DMBT1 mRNA have been noted in gastrointestinal and esophageal cancers as well as in gliomas. LGI1, which is highly specific for neural tissues, shares homology with several transmembrane and extracellular proteins that function as receptors and adhesion proteins.

CHROMOSOMAL LOCATION

Genetic locus: LGI1 (human) mapping to 10q23.33; Lgi1 (mouse) mapping to 19 C3.

SOURCE

LGI1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LGI1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9583 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

LGI1 (C-19) is recommended for detection of LGI1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LGI1 (C-19) is also recommended for detection of LGI1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LGI1 siRNA (h): sc-35806, LGI1 siRNA (m): sc-35807, LGI1 shRNA Plasmid (h): sc-35806-SH, LGI1 shRNA Plasmid (m): sc-35807-SH, LGI1 shRNA (h) Lentiviral Particles: sc-35806-V and LGI1 shRNA (m) Lentiviral Particles: sc-35807-V.

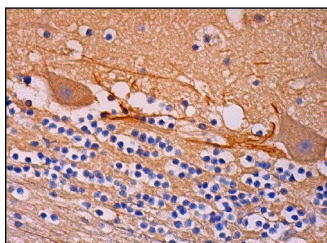
Molecular Weight of LGI1: 60 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



LGI1 (C-19): sc-9583. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells, cytoplasmic and membrane staining of cells in granular layer and neuropil staining in molecular layer.

SELECT PRODUCT CITATIONS

- Senechal, K.R., et al. 2005. ADPEAF mutations reduce levels of secreted LGI1, a putative tumor suppressor protein linked to epilepsy. *Hum. Mol. Genet.* 14: 1613-1620.
- Furlan, S., et al. 2006. The LGI1/epitempin gene encodes two protein isoforms differentially expressed in human brain. *J. Neurochem.* 98: 985-991.
- Gabellini, N., et al. 2006. Increased expression of LGI1 gene triggers growth inhibition and apoptosis of neuroblastoma cells. *J. Cell. Physiol.* 207: 711-721.
- Chabrol, E., et al. 2007. Two novel epilepsy-linked mutations leading to a loss of function of LGI1. *Arch. Neurol.* 64: 217-222.
- Ribeiro, P.A., et al. 2008. Expression profile of Lgi1 gene in mouse brain during development. *J. Mol. Neurosci.* 35: 323-329.
- Gabellini, N., et al. 2009. Expression of LGI1 impairs proliferation and survival of HeLa cells. *Int. J. Cell Biol.* 2009: 417197.
- Malatesta, M., et al. 2009. Distribution of the epilepsy-related Lgi1 protein in rat cortical neurons. *Histochem. Cell Biol.* 132: 505-513.
- Thomas, R., et al. 2010. LGI1 is a Nogo receptor 1 ligand that antagonizes myelin-based growth inhibition. *J. Neurosci.* 30: 6607-6612.

RESEARCH USE

For research use only, not for use in diagnostic procedures.