

MASS1 (C-20): sc-21252

BACKGROUND

G protein-coupled receptors (GPCRs) are the largest superfamily of related proteins. All have 7-transmembrane segments and allow cells to sample and respond to their environment. MASS1 (for monogenic audiogenic seizure susceptibility 1) is one of the largest known GPCRs and is therefore referred to as Very Large G protein-coupled receptor 1 (VLGR1). MASS1 is a large, calcium-binding GPCR expressed in the central nervous system and the eye. MASS1 has a large ectodomain containing multiple calcium exchanger β repeats that resemble regulatory domains of sodium-calcium exchanger proteins. The human MASS1 gene maps to chromosome 5q14.3 and encodes a 1,967 amino acid protein. The MASS1 gene has been linked to the autosomal recessive inheritance of general epilepsy in Frings mice that have seizures in response to loud noises.

REFERENCES

1. Nikkila, H., et al. 2000. Sequence similarities between a novel putative G protein-coupled receptor and $\text{Na}^+/\text{Ca}^{2+}$ exchangers define a cation binding domain. *Mol. Endocrinol.* 14: 1351-1364.
2. Skradski, S.L., et al. 2001. A novel gene causing a mendelian audiogenic mouse epilepsy. *Neuron* 31: 537-544.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602851. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. McMillan, D.R., et al. 2002. Very large G protein-coupled receptor-1, the largest known cell surface protein, is highly expressed in the developing central nervous system. *J. Biol. Chem.* 277: 785-792.
5. LocusLink Report (LocusID: 84059). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: GPR98 (human) mapping to 5q14.3; Gpr98 (mouse) mapping to 13 C3.

SOURCE

MASS1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MASS1 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-21252 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

MASS1 (C-20) is recommended for detection of MASS1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MASS1 (C-20) is also recommended for detection of MASS1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for MASS1 siRNA (h): sc-42013, MASS1 siRNA (m): sc-42014, MASS1 shRNA Plasmid (h): sc-42013-SH, MASS1 shRNA Plasmid (m): sc-42014-SH, MASS1 shRNA (h) Lentiviral Particles: sc-42013-V and MASS1 shRNA (m) Lentiviral Particles: sc-42014-V.

Molecular Weight of MASS1: 220 kDa.

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.

SELECT PRODUCT CITATIONS

1. Hu, Q.X., et al. 2014. Constitutive $G_{\alpha 1}$ coupling activity of very large G protein-coupled receptor 1 (VLGR1) and its regulation by PDZD7 protein. *J. Biol. Chem.* 289: 24215-24225.

RESEARCH USE

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