

otogelin (S-17): sc-168862

BACKGROUND

Otogelin (OTOG), also known as OTGN, is a 2,925 amino acid secreted protein that belongs to the otogelin family and exists as 2 alternatively spliced isoforms. Otogelin contains four VWFD domains, one CTCK (C-terminal cysteine knot-like) domain, one EGF-like domain and one TIL (trypsin inhibitory-like) domain. As a glycoprotein specific to acellular membranes of the inner ear, otogelin may be involved in the organization and/or stabilization of the fibrillar network that composes the tectorial membrane in the cochlea. In addition, otogelin may be required for the anchoring of the otoconial membranes and cupulae to the underlying neuroepithelia in the vestibule of the ear. The gene that encodes otogelin consists of nearly 100,000 bases and maps to human chromosome 11p15.1.

REFERENCES

- Cohen-Salmon, M., et al. 1997. Otogelin: a glycoprotein specific to the acellular membranes of the inner ear. *Proc. Natl. Acad. Sci. USA* 94: 14450-14455.
- Cohen-Salmon, M., et al. 1999. Mapping of the otogelin gene (OTGN) to mouse chromosome 7 and human chromosome 11p14.3: a candidate for human autosomal recessive nonsyndromic deafness DFNB18. *Mamm. Genome* 10: 520-522.
- Fabiani, J.E., et al. 2000. Hereditary angioedema. Long-term follow-up of 88 patients. Experience of the Argentine Allergy and Immunology Institute. *Allergol. Immunopathol.* 28: 267-271.
- Simmler, M.C., et al. 2000. Targeted disruption of otog results in deafness and severe imbalance. *Nat. Genet.* 24: 139-143.
- Online Mendelian Inheritance in Man, OMIM[™]. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604487. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Jira, P.E., et al. 2003. Smith-Lemli-Opitz syndrome and the DHCR7 gene. *Ann. Hum. Genet.* 67: 269-280.
- Schuchman, E.H. 2007. The pathogenesis and treatment of acid sphingomyelinase-deficient Niemann-Pick disease. *J. Inher. Metab. Dis.* 30: 654-663.
- Bhuiyan, Z.A., et al. 2008. An intronic mutation leading to incomplete skipping of exon-2 in KCNQ1 rescues hearing in Jervell and Lange-Nielsen syndrome. *Prog. Biophys. Mol. Biol.* 98: 319-327.
- Coldren, C.D., et al. 2009. Chromosomal microarray mapping suggests a role for BSX and Neurogranin in neurocognitive and behavioral defects in the 11q terminal deletion disorder (Jacobsen syndrome). *Neurogenetics* 10: 89-95.

CHROMOSOMAL LOCATION

Genetic locus: OTOG (human) mapping to 11p15.1; Otog (mouse) mapping to 7 B4.

SOURCE

otogelin (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of otogelin 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-168862 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

otogelin (S-17) is recommended for detection of otogelin 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).

otogelin (S-17) is also recommended for detection of otogelin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for otogelin siRNA (h): sc-96567, otogelin siRNA (m): sc-151342, otogelin shRNA Plasmid (h): sc-96567-SH, otogelin shRNA Plasmid (m): sc-151342-SH, otogelin shRNA (h) Lentiviral Particles: sc-96567-V and otogelin shRNA (m) Lentiviral Particles: sc-151342-V.

Molecular Weight of otogelin isoforms: 315/160 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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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