

Otoraplin (C-13): sc-85799

BACKGROUND

Otoraplin, also known as fibrocyte-derived protein or melanoma inhibitory activity-like protein, is a 128 amino acid secreted protein that is highly and specifically expressed in the cochlea. This highly conserved protein contains an SH3 domain, through which it probably interacts with other proteins. Otoraplin shares significant sequence similarity with MIA (melanoma inhibitory activity), which is a cartilage-specific protein that is frequently expressed in a variety of tumors. Otoraplin may play a role in periotic mesenchyme chondrogenesis, suggesting that defects in the gene encoding Otoraplin could lead to certain forms of deafness that are associated with malformations of the otic capsule. Similarly, a frequent polymorphism in the translation initiation codon of the Otoraplin gene has been linked to types of inner ear dysfunction.

REFERENCES

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3. Cohen-Salmon, M., et al. 2000. Fdp, a new fibrocyte-derived protein related to MIA/CD-RAP, has an *in vitro* effect on the early differentiation of the inner ear mesenchyme. *J. Biol. Chem.* 275: 40036-40041.
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7. Stoll, R., et al. 2003. Backbone dynamics of the human MIA protein studied by ¹⁵N NMR relaxation: implications for extended interactions of SH3 domains. *Protein Sci.* 12: 510-519.
8. García Berrocal, J.R., et al. 2008. Intervention of spiral ligament fibrocytes in the metabolic regulation of the inner ear. *Acta Otorrinolaringol Esp.* 59: 494-499.
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CHROMOSOMAL LOCATION

Genetic locus: OTOR (human) mapping to 20p12.1; Otor (mouse) mapping to 2 G1.

SOURCE

Otoraplin (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Otoraplin 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-85799 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Otoraplin (C-13) is recommended for detection of Otoraplin 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).

Otoraplin (C-13) is also recommended for detection of Otoraplin in additional species, including bovine.

Suitable for use as control antibody for Otoraplin siRNA (h): sc-76013, Otoraplin siRNA (m): sc-151347, Otoraplin shRNA Plasmid (h): sc-76013-SH, Otoraplin shRNA Plasmid (m): sc-151347-SH, Otoraplin shRNA (h) Lentiviral Particles: sc-76013-V and Otoraplin shRNA (m) Lentiviral Particles: sc-151347-V.

Molecular Weight of Otoraplin: 15 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.