**BACKGROUND**

Otoferlin is a single-pass type II membrane protein composed of 1,230 amino acid residues. Otoferlin exists in four isoforms; isoform 1 is the full-length Otoferlin protein, whereas isoforms 2-4 are shorter versions of the protein. Expression of isoforms 1 and 3 is demonstrated in adult brain, while isoform 2 is expressed in the fetus, adult brain, heart, placenta, skeletal muscle and kidney tissues. Otoferlin has three C2 domains and a single carboxy-terminal transmembrane domain. The Otoferlin gene, OTOF, and its surrounding genes map to 2p23.3, and the 5' region of OTOF is centromeric. Mutations in the OTOF gene are implicated in deafness. Otoferlin is homologous to the *C. elegans* spermatogenesis factor FER-1 and to human dysferlin, implicating the involvement of Otoferlin in the Ca2+-triggered synaptic vesicle-plasma membrane fusion.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: OTOF (human) mapping to 2p23.3; Otof (mouse) mapping to 5 B1.

**RESEARCH USE**

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

**SOURCE**

Otoferlin (H-150) is a rabbit polyclonal antibody raised against amino acids 691-840 mapping within an internal region of Otoferlin 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.

**APPLICATIONS**

Otoferlin (H-150) is recommended for detection of Otoferlin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), 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).

Otoferlin (H-150) is also recommended for detection of Otoferlin in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Otoferlin siRNA (h): sc-61269, Otoferlin siRNA (m): sc-61270, Otoferlin shRNA Plasmid (h): sc-61269-SH, Otoferlin shRNA Plasmid (m): sc-61270-SH, Otoferlin shRNA (h) Lentiviral Particles: sc-61269-V and Otoferlin shRNA (m) Lentiviral Particles: sc-61270-V.

Molecular Weight of Otoferlin: 140.5 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or DU 145 cell lysate: sc-2268.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:200-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-61263 (dilution range 1:50-1:3000), 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:50-1:500).

**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 website at www.scbt.com or our catalog for detailed protocols and support products.

**Otoferlin (C-12): sc-271092, our highly recommended monoclonal alternative to Otoferlin (H-150).**