

Otoconin 90 (E-14): sc-98057

BACKGROUND

The ability to sense orientation relative to gravity requires dense particles, called otoconia, which are localized in the vestibular macular organs. In mammals, otoconia are composed of proteins (Otoconins) and calcium carbonate crystals in a calcite lattice. Otoconin 90, also known as PLA2L (phospholipase A2 homolog) or OC90, is a 493 amino acid secreted protein belonging to the phospholipase A2 family. Consisting of three PA2-type domains, Otoconin 90 regulates the growth of otoconia crystals. The inertial mass of otoconia crystals provides a shearing force to stimulate the mechanoreceptors of the utricle and saccule (the gravity receptor organ) under the stimuli of linear motion. Otoconin 90 specifically recruits other matrix components, which are essential for formation of the organic matrix of otoconia. Otoconin 90 is encoded by a gene located on human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

CHROMOSOMAL LOCATION

Genetic locus: OC90 (human) mapping to 8q24.22; Oc90 (mouse) mapping to 15 D1.

SOURCE

Otoconin 90 (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Otoconin 90 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-98057 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Otoconin 90 (E-14) is recommended for detection of Otoconin 90 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).

Otoconin 90 (E-14) is also recommended for detection of Otoconin 90 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Otoconin 90 siRNA (h): sc-77683, Otoconin 90 siRNA (m): sc-151341, Otoconin 90 shRNA Plasmid (h): sc-77683-SH, Otoconin 90 shRNA Plasmid (m): sc-151341-SH, Otoconin 90 shRNA (h) Lentiviral Particles: sc-77683-V and Otoconin 90 shRNA (m) Lentiviral Particles: sc-151341-V.

Molecular Weight of Otoconin 90: 50 kDa.

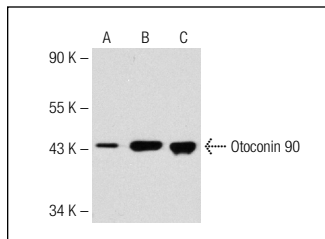
Molecular Weight of glycosylated Otoconin 90: 90 kDa.

Positive Controls: Otoconin 90 (h): 293T Lysate: sc-175367, SK-MEL-28 cell lysate: sc-2236 or mouse brain extract: sc-2253.

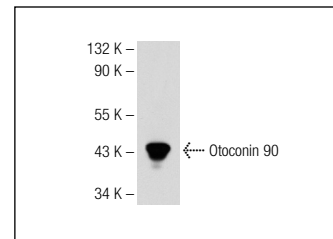
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Otoconin 90 (E-14): sc-98057. Western blot analysis of Otoconin 90 expression in non-transfected 293T: sc-117752 (A), human Otoconin 90 transfected 293T: sc-175367 (B) and SK-MEL-28 (C) whole cell lysates.



Otoconin 90 (E-14): sc-98057. Western blot analysis of Otoconin 90 expression in mouse brain tissue extract.

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.



Try **Otoconin 90 (D-2): sc-376855** or **Otoconin 90 (D-7): sc-376744**, our highly recommended monoclonal alternatives to Otoconin 90 (E-14).