

## OTOR, Human

**Cat. No.:** Z03222-1

**Size:** 1.0 mg

**Synonyms:** FDP, MIAL

### Description:

Otoraplin (OTOR) is a cytokine first identified in 2000 and encodes a small protein of 128 amino acids with an SH3 domain. OTOR is a homologue to CD-RAP/MIA and contains a hydrophobic N-terminal region as a signal peptide, which indicates that OTOR is mainly secreted. Researchers found that high expression of OTOR is only seen in the cochlea, demonstrating its importance in hearing. Indeed, loss of the gene produces cochlear dysfunction and otosclerosis, a hearing disorder involving the bony tissue of the ear. OTOR exerts an influence on the surrounding otic capsule and functions in the extracellular matrix of the membranous portion of the cochlea.

Recombinant human Otoraplin (rhOTOR) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 112 amino acids. rhOTOR has a molecular mass of 12.7 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

```
00001 MVHGIFMDRL ASKKLCADDE CVYTISLASA QEDYNAPDCR
00041 FINVKKGQIQI YVYSKLVKEN GAGEFWAGSV YGDGQDEMGMV
00081 VGYFPRNLVK EQRVYQEATK EVPTTIDIDFF CE
```

**Source:** *E. coli*

**Species:** Human

**Biological Activity:** Data not available.

**Molecular Weight:** 12.7 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/mL.

**Purity:** > 95% by SDS-PAGE analysis.

**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.

**Storage:** Lyophilized recombinant human Otoraplin (rhOTOR) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhOTOR remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.