

## Otolin-1 Protein, Human (HEK293, His)

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|-------------------|-------------------------------------|
| Cat. No.:         | HY-P70965                           |
| Synonyms:         | OTOL1; otolin 1; Otolin-1; C1qTNF15 |
| Species:          | Human                               |
| Source:           | HEK293                              |
| Accession:        | A6NHN0 (K24-P477)                   |
| Gene ID:          | 131149                              |
| Molecular Weight: | 84-94 kDa                           |

### PROPERTIES

|                     |   |
|---------------------|---|
| AA Sequence         | <p> K T T P H T K F T K    K S E E R E M P K G    L K P S S G P P P E    E E E T L F T E M A<br/> E M A E P I T K P S    A L D S V F G T A T    L S P F E N F T L D    P A D F F L N C C D<br/> C C S P V P G Q K G    E P G E T G Q P G P    K G E A G N L G I P    G P P G V V G P Q G<br/> P R G Y K G E K G L    K G E R G D Q G V P    G Y P G K P G A Q G    E P G P K G D K G N<br/> I G L G G V K G Q K    G S K G D T C G N C    T K G E K G D Q G A    M G S P G L H G G P<br/> G A K G E K G E M G    E K G E M G D K G C    C G D S G E R G G K    G Q K G E G G M K G<br/> E K G S K G D S G M    E G K S G R N G L P    G A K G D P G I K G    E K G E L G P P G L<br/> L G P T G P K G D I    G N K G V R G P T G    K K G S R G F K G S    K G E L A R V P R S<br/> A F S A G L S K P F    P P P N I P I K F E    K I L Y N D Q G N Y    S P V T G K F N C S<br/> I P G T Y V F S Y H    I T V R G R P A R I    S L V A Q N K K Q F    K S R E T L Y G Q E<br/> I D Q A S L L V I L    K L S A G D Q V W L    E V S K D W N G V Y    V S A E D D S I F T<br/> G F L L Y P E E T S    G I S P </p> |
| Appearance          | Lyophilized powder.   |
| Formulation         | Lyophilized from a 0.2 µm filtered solution of PBS, 5% Trehalose, pH 7.4.   |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.   |
| Reconstitution      | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.   |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.  |
| Shipping            | Room temperature in continental US; may vary elsewhere.   |

### DESCRIPTION

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| Background | Otolin-1 is a collagen-like protein with specific expression in the inner ear, functioning as a crucial component in the |
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formation of otoconia—an essential calcium carbonate structure located in the saccule and utricle of the ear. This protein acts as an organic scaffold, facilitating biomineralization by sequestering calcium and forming interconnecting fibrils between otoconia. Otolin-1's involvement in this process is further highlighted by its incorporation into the calcium crystal structure. Alongside OC90, Otolin-1 plays a role in modulating calcite crystal morphology and growth kinetics. The protein exists as a homooligomer, likely forming homotrimers through disulfide linkages. Additionally, Otolin-1 interacts with OC90 and CBLN1, underscoring its intricate involvement in the molecular interactions crucial for inner ear function. (

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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