

Product datasheet for **SC307118**

OTOP1 (NM_177998) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OTOP1 (NM_177998) Human Untagged Clone
Tag:	Tag Free
Symbol:	OTOP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >SC307118 representing NM_177998.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGCTCGAGGGCCTGGGGTCGCCCGCTCGCCCCGGGCAGCTGCAAGCGCCTCGGTGCGAGGGTCGTGCG
GGCCAGCGGCCCTGCTCGCTCCCTCGTCCGCCCCGAGTCCCCGGAATCCCGGCCCGCCCGGCGG
GGCGGTGTGCGCGCCAGCGTCCCACAGAACTGGCCGAGATGCTGAGCAGCCAGTATGGGCTGATCGTG
TTCGTGGCGGGGCTGCTGCTGCTGCTGGCCTGGGCCGTGCACGCCGCGGGCGTGAGCAAGAGCGACCTG
CTGTGTTCTGACGGCGCTCATGCTGCTGACGCTGCTGTGGATGCTGTGGTACGTGGGCGCAGCTCC
GCGCACCGCCGCCTTTCCGCCTCAAGGACACGCACGCGGGTCCCGGCTGGCTGCGCGGTAGTATCACA
TTGTTTGAGTCATTACCGTCATCCTGGGATGCCTTAAAATTGGATACTTCATTGGATTTTCAGAATGT
TTATCAGCCACTGAAGGAGTTTTCCAGTCACCCATTCACTGCATACTTTGTTGCAGGTATATTTTCTT
TGGGGCATGCAAAGGATATTATCCAGTCTTTCAAACACTGAAAGTTTGGAGTGATCCACTCGGTG
TTCACCAACTGCTTCTGTGGGCAATGGCGTCTCAATGAGTCAAAGCACCACTCAATGAGCACAAAG
GAACGGCTCATCACTCTGGGTTTTGGGAACATAACAACAGTTTTAGATGACCACACACCGCAGTGTAA
TGACGCCCCCAACTCTGTGCACTGCCATCTCCACGGGATCTACTACCTCTACCCCTTCAACATAGAG
TATCAGATCCTGGCCTCCACAATGCTCTACGTCCTGTGGAAGAACATCGGGCGCAAAGTTGACAGCCAT
CAGCACCAGAAGATGCAGTTCAAGTCTGATGGGGTCAATGGTGGGCGCAGTCTGGGCTGACCGTGTG
GCCGCCACCATGCTGTGGTGGTGGTATACCTGATTATATTGGGCGCTCCAAGACCAAGAGCGAGTGC
GCACTCATCATGTTCTACCTGTATGCCATACCCTGCTGATGCTTATGGGGGCTGCGGGGCTGGCTGGA
ATCCGGATTTACAGGATAGACGAGAAGTCACTGGATGAGTCCAAAAATCCGGCCCGCAAACCTGGACTCG
GACCTCTTGGTGGGCACTGCCTCGGGCTCTGGCTTATCTCCTGGGGCTCAATCTTGGCCATCCTCTGT
GCTGAGGGCCACCCCGCTACACCTGGTACAACCTGCCCTACTCCATCCTGGCGATCGTGGAGAAGTAC
ATCCAGAACCTCTTATCTTTGAATCCATTACCGAGAGCCTGAAAACTCTCTGAGGACATCCAAACC
CTTCGGGTGGTACAGTCTGCAATGGCAACACCATGCCCTTGGCTTCTTCTGCCCAAGAGTGGAGGT
GTGGCCAGAGATGTGGCTCCCCAGGGCAAGGACATGCCACCAGCAGCCAATGAAATGTGTGCATGAGA
GAAAGCCATGACAAGGAGGAGGAGAAGCAGGAGGAGCAGTGGGGAGGGAGCCCAAGCCAGTCCGC
CTTCCCGTTTCTACAGGGCAACGCCAAGAGAAAAGTCTGAGGAATATTGCAGCCTTCTTGTCTCTC
TGCAATATTTGCTTTGGATACCTCCCGCTTTGGCTGTCGACCTGAGTATGACAATGGATTGGAGGAG
ATTGTCTTTGGCTTTGAACCCTGGATAATTGTGGTCAACCTGGCCATGCCTTTTTCTATTTCTATCGA
ATGCACGCAGTGCCTCCCTCTTTGAGGTCTATTGTAAGATATAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGGC
  
```

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_177998
- Insert Size:** 1839 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_177998.1](#)

RefSeq Size: 1869 bp

RefSeq ORF: 1839 bp

Locus ID: 133060

UniProt ID: [Q7RTM1](#)

Cytogenetics: 4p16.3

Protein Families: Transmembrane

MW: 67.4 kDa

Gene Summary: This gene encodes a transmembrane protein which belongs to the otopetrin domain protein family and is required for the formation of otoconia and otoliths, calcium carbonate biominerals within the inner ear of mammals that are required for the detection of linear acceleration and gravity. This gene modulates purinergic control of intracellular calcium in vestibular supporting cells. Naturally occurring mutations in the orthologous mouse gene are associated with nonsyndromic otoconia agenesis and a consequent balance defect. The orthologous mouse gene is also induced in white adipose tissue during obesity. The encoded protein is a component of a counterinflammatory pathway that attenuates obesity-induced adipose tissue inflammation and plays an adaptive role in maintaining metabolic homeostasis in obesity. [provided by RefSeq, Jul 2017]