

Product datasheet for **RC221713**

OTOP1 (NM_177998) Human Tagged ORF Clone

Product data:

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



[View online »](#)

ORF Nucleotide Sequence:

>RC221713 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGCTCGAGGGCCTGGGGTCGCCCGCTCGCCCCGGGCAGCTGCAAGCGCCTCGGTGCGAGGGTCGTCGG
 GGCACGCGGCTGCTCGCTCCCTCGCTCGGCCCGAGGTCCCGAAAATCCCCGGCCCCCGCGGGG
 CGGTGTGCGCGCCAGCGTCCCACAGAACTGGCCGAGATGCTGAGCAGCCAGTATGGGCTGATCGTGTT
 GTGGCGGGCTGCTGCTGCTGGCCTGGGCCGTGCACGCCGGGGCTGAGCAAGAGCGACCTGCTGT
 GCTTCTGACGGCGTCACTGCTGCTGCAGCTGCTGTGGATGCTGTGGTACGTGGGCCGAGCTCCGCGCA
 CCGCCGCCTCTCCGCCTCAAGGACACGCACGCGGGTCCCGGCTGGCTGCGCGGTAGTATCACATTGTTT
 GCAGTCATTACCGTCATCCTGGGATGCCTAAAATTGGATACTTCATTGGATTTTCAGAATGTTTATCAG
 CCACTGAAGGAGTTTTCCAGTCACCCATTGAGTCATACTTTGTTGCAGGTATATTTCTTTGGGGCA
 TGCAAAGGATATTATCCAGTCTTCAAACACTGGAAAGTTTGGAGTGATCCACTCGGTGTTCCACCAAC
 CTGCTTCTGTGGGCCAATGGCGTCTCAATGAGTCAAAGCACCAACTCAATGAGCACAAGGAACGGCTCA
 TCACTCTGGGTTTTGGGAACATAACAACAGTTTTAGATGACCACACACCCGAGTGAACGCACGCCCC
 AACTCTGTGCACTGCCATCTCCACGGGATCTACTACCTTACCCCTTCAACATAGAGTATCAGATCCTG
 GCCTCCACAATGCTCTACGTCTGTGGAAGAATCGGGCGAAAGTTGACAGCCATCAGCACCAGAAGA
 TGCAGTTCAAGTCTGATGGGGTCATGGTGGGCGCAGTCTGGGCTGACCGTGTGGCCGCCACCATGTC
 TGTGGTGGTGTATACCTGATTCATATTGGGCGCTCAAGACCAAGAGCGAGTGGCACTCATATGTTT
 TACCTGTATGCCATCACCTGCTGATGCTTATGGGGCTGCGGGGCTGGTGGAAATCCGGATTTACAGGA
 TAGACGAGAAGTCACTGGATGAGTCCAAAATCCGGCCGAAACTGGACTCGGACCTCTTGGTGGGCAC
 TGCTCGGGCTCCTGGCTTATCTCTGGGCTCAATCTTGGCCATCCTCTGTGCTGAGGGCCACCCCGC
 TACACCTGGTACAACCTGCCCTACTCCATCCTGGCGATCGTGGAGAAGTACATCCAGAACCTCTTATCT
 TTGAATCCATTCACCGAGAGCCTGAAAACTCTCTGAGGACATCCAAACCTTCCGGTGGTACAGTCTG
 CAATGGCAACACCATGCCCTTGTCTTCTGCCCCAAGAGTGGAGGTGTGGCCAGAGATGTGGCTCCC
 CAGGGCAAGGACATGCCACCAGCAGCAATGGAATGTGTGCATGAGAGAAAGCCATGACAAGGAGGAGG
 AGAAGCAGGAGGAGCAGCTGGGAGGGAGCCCAAGCCAGTCCGCCTTCCCCGTTTCTACAGGGCAA
 CGCAAGAGAAAAGTCTGAGGAATATTGCAGCCTTCTGTTCTCTGCAATATTTGCTTTGGATACTT
 CCCGCTTTGGCTGTCGACCTGAGTATGACAATGGATTGGAGGAGATTGCTTTGGCTTTGAACCTGGA
 TAATTGGGTCAACCTGGCCATGCCTTTTTCTATTTTCTATCGAATGCACGCAGTGCCTCCCTCTTGA
 GGTCTATTGTAAGATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221713 protein sequence
 Red=Cloning site Green=Tags(s)

MLEGLGSPASPRAAASASVAGSSGPAACSPSSAPRSPKSPAPRRGGVRSVLPQKLAEMLSQYGLIVF
 VAGLLLLLAWAVHAAGVSKDLLCFLTALMLLQLLWMLWYVGRSSAHRRLFRLKDHAGAWLRGSITLF
 AVITVILGCLKIGYIFGFSELSATEGVFPVTHSVHTLLQVYFLWGHAKDIIQSFKTLERFVGHVSVFTN
 LLLWANGVLNESHKQLNEHKERLITLGFNITTVLDDHTPQCNCPTPTLCTAISHGIYYLYPFIIEYQIL
 ASTMLYVLWKNIGRQVDSHQHQMFKSDGVMVGAVLGLTVLAATIAVVVVYLIHIGRSKTKSESALIMF
 YLYAITLLMLMGAAGLAGIRIYRIDEKSLDESKNPARKLSDLLVGTASGSWLISWGSILAILCAEGHPR
 YTWYNLPYSILAIVEKYIQNLFIFESIHRPEKLSEDIQTLRVVTVCNGMTPLASSCPKSGGVARDVAP
 QGKDMPPAANGNVMRESHDKKEEKQEESWGGSPSPVRLPRFLQGNARVKVLRNIAAFLFLCNISLWIP
 PAFGCRPEYDNGLEEIVFGFEPWIIIVVNLAMPFSIFYRMHAAAASLFEVYCKI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_177998

ORF Size: 1836 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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](#), [NP_819056.1](#)

RefSeq Size: 1869 bp

RefSeq ORF: 1839 bp

Locus ID: 133060

UniProt ID: [Q7RTM1](#)

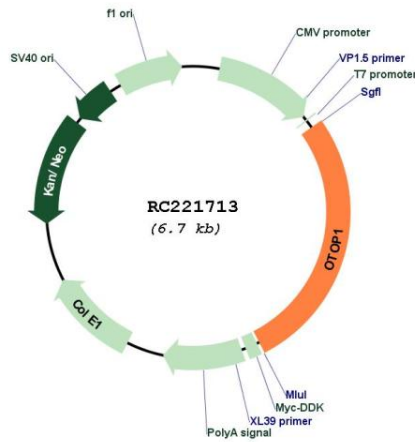
Cytogenetics: 4p16.3

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]

Product images:



Circular map for RC221713