

Product datasheet for **MR225961**

Otol1 (NM_001018031) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Otol1 (NM_001018031) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Otol1
Synonyms:	Gm414
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225961 representing NM_001018031
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTGGATATTTTCTTCGCTTTGTGCTGTTTTAACTATTTTGGCTATGGATGATGTGCCACAGAAGCAA
 AGACCACACCATACACCAATTTACGAAGAAATCTGAAGGAAAAGAGATGTTGAAGGGCTTAAAGCCGTC
 CAGTGGCTTCTTTCTGGATGGAGAAGAAACCGTCCATACGAAACGGCTGCCATGGCAGAGCCACCACC
 GGCTCCCCTGCCTTGGCAATGGCTGAGTCCACCGCAGGCCCTCGGCCTCTGCCACAACCCGCTCCTTTC
 CCTTCGAGAGCTTCTCTCGGACACAACGGTTTCGTTTTGAATTGCTGCCATTGTTGTTCAATTTGTAC
 TGGGCAGAAAGGAGAACCCGAAAGATGGGAAAACAAGGCCCTAAAGGAGAGACTGGTGACTGGCAGC
 CCAGGACACCCAGGAACCACTGGACCTCAAGTCCAAAGGCCAGAAAGGAGAGAAAGGACTAAAGGGAG
 ACCGGGGGACCAAGGAGCAGGTGGCATTCCGGGGTACCCAGGAAAACAGGAGAGCAAGGTGCACTTGG
 TCCCAAGGGAGATAAAGGAACCATCGGCCCGGCAGGAACGAAAGGACAAAAGGCTCTAAGGGAGAAGT
 TGTGGGAATGGCACTAAAGGAGAGAAAGGGGACCTGGGGCTCTGGGGCCCATGGCTTCATTGGAGAGC
 CTGGGGCAAGGGCGAGAAGGGTGGTGTGGGGAGAAAGGCTACCGAGGAGATTTGGGGAAAGGGGAGA
 AAAGGGGCAGAAAGGCGAGAAAGGGATGGAGGGAGAGAAAGGTAGCAGAGGAGATGTTGGGTGAGAGGC
 AAAAGGGGTTTCAGATGGTCTACCGGGCTCAGAGGCGATTCTGGTCTAAAGGAGAAAAAGGAGAGATAG
 GTTCTCCTGGTTTCACCGGACCTCGGGGACAAAGGGTGAAGTGGAAAGCAAAGGTGTTTCGAGGGCCAA
 AGGGAAGAAGGGCTCTCGGGGTGCAAGGGTCCAAAGGCGAGGCCACACAAGTCCCACAGTCGGCTTTC
 AGTGCCCTTTTATCCAAGCCCTCCCTCCCCAACGTTCCCATCAAGTTTGACAAGATTCTCTAATG
 ACCAAGGGGATTACAGCCCGCTCACTGGGAAATTTAACTGTAGTGTTCCTGGGACATACATTTTCTCCTA
 TCATGTCACTGTGAGGGTGCACCTGCTCGGATCAGCCTCGTGGCCCGCAACAGGAAGCAGTTCAATCC
 AGAGAGACGCTCTATGGTCAAGTAGATCAGGCCTCCCTCCTCCTCATTCTGAAATTGAGTGCAGGAG
 ATCAAGTGTGGCTGGAAGTGTCAAAGGACTGGAATGGGCTGTATGTCGGCCCGAGGATGACAGCATCTT
 TAGTGGTTCTTCTGTACCCAGAGGAACTTTTAGTAAGTACCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR225961 representing NM_001018031
 Red=Cloning site Green=Tags(s)

MWIFSSLCAVLILAMDDVATEAKTTPYTKFTKKSEGKEMLKGLKPSSGFFLDGEETVHTETAAMAEP
 TGGSPALAMAESTAGPSASATTRLPLPESFSLDITGFVLCCHCCSFVTGQKGEKPKMGKQPKGETGDTGS
 PGHPGTTGPQPKGQKGEKGLKGDGRDQAGGIPGYPGKPGEQGALGPKGDKGTIGPAGTKGQKSGKGL
 CGNGTKGEKGDGASGAGHFIGEPGAKGEKGGVGEKGYRGLGERGEKQKGEKMEGEKSRGDVSGE
 KRGSDGLPGLRGDSGPKGEKGEIGSPGFTGPAGPKGELGSKGVRGPTGKKGSRGVKSGKGEATQVPQSA
 F SALLSKPFPNVPKFDKILSNDQGDYSPVTGKFNCSVPGTYIFSYHVTVRGRPARISLVARNRQFKS
 RETLYGQVQDASLLLILKLSAGDQVWLEVSKDWNGLYVGPEDDSIFSGFLLYPEETFSSKSP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9016_g05.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001018031

ORF Size: 1446 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_001018031.2](#), [NP_001018041.2](#)

RefSeq Size: 2161 bp

RefSeq ORF: 1449 bp

Locus ID: 229389

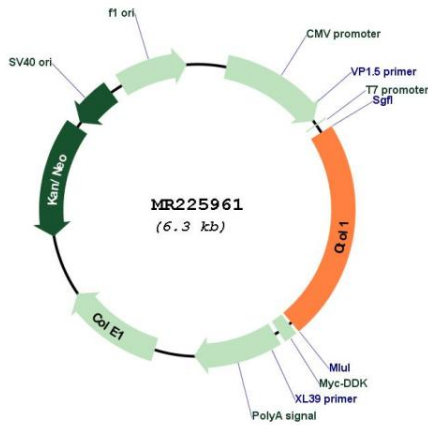
UniProt ID: [Q4ZJM7](#)

Cytogenetics: 3 E2

MW: 50.1 kDa

Gene Summary: Collagen-like protein specifically expressed in the inner ear, which provides an organic scaffold for otoconia, a calcium carbonate structure in the saccule and utricle of the ear (PubMed:21655225, PubMed:24748133, PubMed:29076638). Acts as a scaffold for biomineralization: sequesters calcium and forms interconnecting fibrils between otoconia that are incorporated into the calcium crystal structure (PubMed:21655225, PubMed:24748133, PubMed:29076638). Together with OC90, modulates calcite crystal morphology and growth kinetics (PubMed:24748133).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225961