

## Product datasheet for MR202354

## Otulin (NM\_001013792) Mouse Tagged ORF Clone

### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Otulin (NM\_001013792) Mouse Tagged ORF Clone

Tag: Myc-DDK

Symbol: Otulin

Synonyms: C79097; Fam105b; m3Sapc; m7-1Sapc

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

ORF Nucleotide >MR202354 representing NM\_001013792
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGAGTCGGGGAACCATGCCCCAGCCCGGAGCGTGGCCCGGTGCAAGCTGCGCCGAGACGCCGGCGCGCG AGGCCGGGGCCGCGGGACGCGGGAAGGTGACGGCCGGCGCGCAGCCCCGGGCCGCACGCGATG CATGAAAGAGGGATATCAGAACCCAGGTTAAGTGTGGCTCCTGAAATGGATATCATGGACTACTGCAAAA AAGAATGGAGAGAAATACTCAGAAAGCCACATGTATGAAAAAAGGGCTATGAGGAAGTGTCTCAGAAATT CACTTCCATAAGGCGAGTCCGTGGTGATAACTACTGTGCACTGAGGGCCACACTGTTCCAGGCCATGAGC CAGCTGGCCGAGCTGCCCCCCTGGCTGCAGGACTTGGAGCTCATACTGTTACCAGAGAAGCTGATAAACA AGTATACCTGGATCAAGCAGTGGAAACTTGGACTGAAATTTGATGGGAAGAGTGAGGACCTGGTTGAAAA AATTAAGGAATCCCTTGCCCTGCTAAGGAAGAAGTGGGTAAGCCTGGCTGCAATGAAAACTGCTGAAGCG AGGCAGACAGCTTGTGATGAGCTGTTCACCAACGAAGAGGAGGAGTACAGCCTCTACGAAGCTGTGAAGT TCCTGATGTTAAACAGAGCCATCGAACTGTACGATGACAAGGAGAGAGGGAAAGGGAAGTGCCGTTCTTCTC TGTGCTCTTGTTTGCCCGAGACACCTCCAATGACCCTGAACAGCTCCTGAGGAACCACCTAAACCAGGTG GGACACACGGGGGGCCTTGAGCAGGTTGAGATGTTCCTTCTTGCCTATGCTGTCCGCCACAGCATCCGGG TGTACCGGCTGTCCAAGTATAACACAGAGGAGTTCATCACAGTCTACCCCACTGATCCCCCCAAGGACTG GCCAATGGTGACCCTCATAGCTGAGGATGATCGGCACTATAACATCCCTGTCAGAGTGTGTGAGGAGACC AGTGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR202354 representing NM\_001013792

Red=Cloning site Green=Tags(s)

MSRGTMPQPGAWPGASCAETPAREAGAAARDGGKVTAGAQPRAATRCPAEHEEDMYRAADEIEKEKELLI HERGISEPRLSVAPEMDIMDYCKKEWRGNTQKATCMKKGYEEVSQKFTSIRRVRGDNYCALRATLFQAMS QLAELPPWLQDLELILLPEKLINKYTWIKQWKLGLKFDGKSEDLVEKIKESLALLRKKWVSLAAMKTAEA RQTACDELFTNEEEEYSLYEAVKFLMLNRAIELYDDKEKGKEVPFFSVLLFARDTSNDPEQLLRNHLNQV GHTGGLEQVEMFLLAYAVRHSIRVYRLSKYNTEEFITVYPTDPPKDWPMVTLIAEDDRHYNIPVRVCEET SV

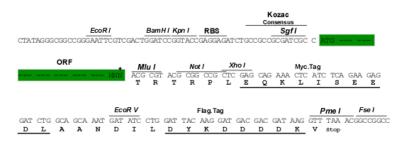
**TRTRPL**EQKLISEEDLAANDILDYKDDDDK**V** 

Chromatograms: <a href="https://cdn.origene.com/chromatograms/ja2263">https://cdn.origene.com/chromatograms/ja2263</a> c07.zip

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_001013792

ORF Size: 1056 bp

**OTI Disclaimer:** 

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:customer.com">customer.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

#### Otulin (NM\_001013792) Mouse Tagged ORF Clone - MR202354

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:** <u>NM 001013792.2</u>, <u>NP 001013814.2</u>

RefSeq Size: 1491 bp
RefSeq ORF: 1059 bp
Locus ID: 432940
UniProt ID: Q3UCV8
Cytogenetics: 15 B1

MW: 40.8 kDa

**Gene Summary:** Deubiquitinase that specifically removes linear ('Met-1'-linked) polyubiquitin chains to

substrates and acts as a regulator of angiogenesis and innate immune response (PubMed:23708998, PubMed:27523608, PubMed:29950720). Required during angiogenesis, craniofacial and neuronal development by regulating the canonical Wnt signaling together with the LUBAC complex (PubMed:23708998). Acts as a negative regulator of NF-kappa-B by

regulating the activity of the LUBAC complex (By similarity). OTULIN function is mainly restricted to homeostasis of the LUBAC complex: acts by removing 'Met-1'-linked autoubiquitination of the LUBAC complex, thereby preventing inactivation of the LUBAC complex (PubMed:29950720). Acts as a key negative regulator of inflammation by restricting spontaneous inflammation and maintaining immune homeostasis (PubMed:27523608, PubMed:29950720). In myeloid cell, required to prevent unwarranted secretion of cytokines leading to inflammation and autoimmunity by restricting linear polyubiquitin formation

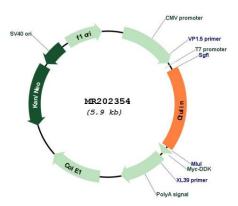
polyubiquitin formation on LUBAC complex in response to NOD2 stimulation, probably to limit NOD2-dependent proinflammatory signaling (By similarity).[UniProtKB/Swiss-Prot

(PubMed:27523608). Plays a role in innate immune response by restricting linear

Function]



# **Product images:**



Circular map for MR202354