

Product datasheet for **MG202354**

Otulin (NM_001013792) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Otulin (NM_001013792) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Otulin
Synonyms:	C79097; Fam105b; m3Sapc; m7-1Sapc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG202354 representing NM_001013792 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGAGCCAGCTGGCCGAGCTGCCCCCTGGCTGCAGGACTTGGAGCTCATACTGTTACCAGAGAAGCTGA
TAAACAAGTATACCTGGATCAAGCAGTGGAAACTTGGACTGAAATTTGATGGGAAGAGTGAGGACCTGGT
TGAAAAAATTAAGGAATCCCTTGCCCTGCTAAGGAAGAAGTGGTAAGCCTGGCTGCAATGAAAAGTCT
GAAGCGAGGCAGACAGCTTGTGATGAGCTGTTACCAACGAAGAGGAGGAGTACAGCCTCTACGAAGCTG
TGAAGTTCCTGATGTTAAACAGAGCCATCGAAGTGTACGATGACAAGGAGAAGGGAAAGGAAGTGCCGTT
CTTCTCTGTGCTCTGTTTGCCCGAGACACATCCAATGACCCTGAACAGCTCCTGAGGAACACCTAAAC
CAGGTGGGACACACGGGGGGCCTTGAGCAGGTTGAGATGTTCTTCTTGCCATGCTGTCCGCCACAGCA
TCCGGGTGTACCGGCTGTCCAAGTATAACACAGAGGAGTTCATCACAGTCTACCCCACTGATCCCCCAA
GGACTGGCCAATGGTGACCCTCATAGCTGAGGATGATCGGCACTATAACATCCCTGTCAGAGTGTGTGAG
GAGACCAAGTGTG

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG202354 representing NM_001013792
 Red=Cloning site Green=Tags(s)

MSQLAELPPWLQDLELILLPEKLINKYTWIKQWKLGLKFDGKSEDLVEKIKESLALLRKKWVSLAAMKTA
 EARQTACDELFTNEEEYSLEYAVKFLMLNRAIELYDDKEKGKEVPFFSVLLFARDTSNDPEQLLRNHLN
 QVGHGTGGLLEQVEMFLLAYAVRHSIRVYRLSKYNTTEEFITVYPTDPPKDWPMTLIAEDDRHYNIPVRVCE
 ETSV

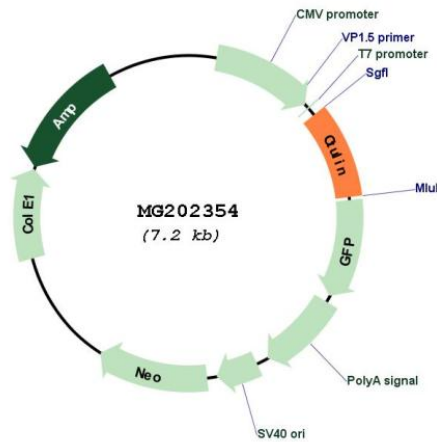
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001013792

ORF Size: 1488 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 custsupport@origene.com 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. [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_001013792.1](#)

RefSeq Size: 1206 bp

RefSeq ORF: 1059 bp

Locus ID: 432940

UniProt ID: [Q3UCV8](#)

Cytogenetics: 15 B1

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 (PubMed:27523608). Plays a role in innate immune response by restricting linear polyubiquitin formation on LUBAC complex in response to NOD2 stimulation, probably to limit NOD2-dependent proinflammatory signaling (By similarity).[UniProtKB/Swiss-Prot Function]