

## Product datasheet for **RG221836**

### Optineurin (OPTN) (NM\_001008213) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Optineurin (OPTN) (NM_001008213) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OPTN
Synonyms:	ALS12; FIP2; GLC1E; HIP7; HYPL; NRP; TFIIIA-INTP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG221836 representing NM\_001008213  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCCATCAACCTCTCAGCTGCCTCACTGAAAAGGAGGACAGCCCCAGTGAAAGCACAGGAAATGGAC  
 CCCCCACCTGGCCACCCAAACCTGGACACGTTTACCCCGGAGGAGCTGCTGCAGCAGATGAAAGAGCT  
 CCTGACCGAGAACCACCGCTGAAAAGAAGCCATGAAGCTAAATAATCAAGCCATGAAAGGGAGATTTGAG  
 GAGCTTTCGCGCTGGACAGAGAAACAGAAGGAAGAAGCCAGTTTTTTGAGATACAGAGCAAAGAAGCAA  
 AAGAGCGTCTAATGGCCTTGAGTCATGAGAATGAGAAATTGAAGGAAGAGCTTGGAAAATAAAAGGGAA  
 ATCAGAAAGGTCTCTGAGGACCCCACTGATGACTCCAGGCTTCCAGGGCCGAAGCGGAGCAGGAAAAG  
 GACCAGCTCAGGACCCAGGTGGTGGGCTACAAGCAGAGAAGGCAGACCTGTTGGGCATCGTGTCTGAAC  
 TGCAGCTCAAGCTGAACTCCAGCGGCTCCTCAGAAGATTCCTTTGTTGAAATTAGGATGGCTGAAGGAGA  
 AGCAGAAGGGTCAGTAAAAGAAATCAAGCATAGTCTGGGCCACGAGAACAGTCTCCACTGGCACGGCA  
 TTGTCTAAATATAGGAGCAGATCTGCAGATGGGGCCAAGAATTACTTCGAACATGAGGAGTTAACTGTGA  
 GCCAGCTCCTGTGTGCCTAAGGAAGGGAATCAGAAGGTGGAGAGACTTGAAGTTGCACTCAAGGAGGC  
 CAAAGAAAGAGTTTTCAGATTTTAAAAAGAAAACAAGTAATCGTTCTGAGATTGAAACCCAGACAGAGGGG  
 AGCACAGAGAAAGAGAATGATGAAGAGAAAAGGCCCGGAGACTGTTGGAAGCGAAGTGAAGCACTGAACC  
 TCCAGGTGACATCTCTGTTTAAAGGAGCTCAAGAGGCTCATAAAAACTCAGCGAAGCTGAGCTAATGAA  
 GAAGAGACTTCAAGAAAAGTGTCAAGGCCCTTGAAGGAAAAATTCGCAATTCATCAGAGTTGAATGAA  
 AAGCAAGAGCTTGTATATACTAACAAAAAGTTAGAGCTACAAGTGAAAGCATGCTATCAGAAATCAAAA  
 TGAACAGGCTAAAACAGAGGATGAAAAGTCCAATTAAGTGTCTACAGATGACACACAACAAGCTTCT  
 TCAAGAACAATAAATGCATTGAAAACAATTGAGGAACTAACAGAAAAGAGTCAGAAAAGTGGACAGG  
 GCAGTGTGAAGGAACTGAGTAAAAAAGTGAAGTGGCAGAGAAGGCTCTGGCTTCCAAACAGCTGCAAA  
 TGGATGAAATGAAGCAAACATTGCCAAGCAGGAAGAGGACCTGGAAACCATGACCATCCTCAGGGCTCA  
 GATGGAAGTTTACTGTTCTGATTTTCTGCTGAAAGAGCAGCGAGAGAGAAAATTCATGAGGAAAAGGAG  
 CAACTGGCATTGCAGCTGGCAGTTCTGCTGAAAGAGAATGATGCTTTCGAAGACGGAGGCAGGCAGTCT  
 TGATGGAGATGCAGATCGTCTGTTGGGCGAGAACAAGTACTCTGACCAGCAGGCTTACCTTGTTCAAAG  
 AGGAGCTGAGGACAGGACTGGCGCAACAGCGGAATATTCGATTCTTCTGCCCAAGTGTGGAGAG  
 GTTCTGCCTGACATAGACACGTTACAGATTCACGTGATGGATTGCATCATT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG221836 representing NM\_001008213  
 Red=Cloning site Green=Tags(s)

MSHQPLSCLTEKEDSPSESTGNPPHLAHPNLDFTPEELLQQMKELLTENHQLKEAMKLNQAMKGRFE  
 EL SAWTEKQKEERQFFEIQSKEAKERLMALSHENEKLEELGKLGKSERSSDPTDDSRLPRAEAEQEK  
 DQLRTQVVRQLAEKADLLGIVSELQLKLNSSGSEDSFVEIRMAEGEAEGSVKEIKHSPGPTRTVSTGTA  
 LSKYRSRSADGAKNYFEHEELTVSQQLLCLREGNQKVERLEVALKEAKERVSDFEKTSNRSEIETQTEG  
 STEKENDEEKGPETVGSEVEALNLQVTSLFKELQEHTKLSEAEMLMKRLQEKQALERKNSAIPSELNE  
 KQELVYTNKKLELQVESMLSEIKMEQAKTEDEKSKLTVLQMTHNKLLQEHNNALKTIEELTRKESEKVD  
 AVLKELSEKLELAEKALASKQLQMDQEMKQTIKQEEEDLEMTILRAQMEVYCSDFHAERAAREKIH  
 EEKEQLALQLAVLLKENDAFEDGGRQSLMEMQSRHGARTSDSDQAYLVQRGAEDRDWRQQRNIP  
 IHSCPCKGCVLPDIDTLQIHVMDCII

**TRTRPLE** – GFP Tag – V

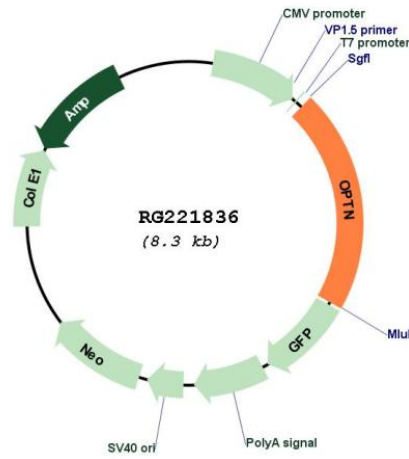
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001008213

ORF Size: 1731 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001008213.1</a> , <a href="#">NP_001008214.1</a>
<b>RefSeq Size:</b>	3582 bp
<b>RefSeq ORF:</b>	1734 bp
<b>Locus ID:</b>	10133
<b>UniProt ID:</b>	<a href="#">Q96CV9</a>
<b>Cytogenetics:</b>	10p13
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	This gene encodes the coiled-coil containing protein optineurin. Optineurin may play a role in normal-tension glaucoma and adult-onset primary open angle glaucoma. Optineurin interacts with adenovirus E3-14.7K protein and may utilize tumor necrosis factor-alpha or Fas-ligand pathways to mediate apoptosis, inflammation or vasoconstriction. Optineurin may also function in cellular morphogenesis and membrane trafficking, vesicle trafficking, and transcription activation through its interactions with the RAB8, huntingtin, and transcription factor IIIA proteins. Alternative splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jul 2008]