

## Product datasheet for **RC202470**

### Optineurin (OPTN) (NM\_001008211) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                                     |
| Product Name:             | Optineurin (OPTN) (NM_001008211) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK   |
| Symbol:                   | Optineurin  |
| Synonyms:                 | ALS12; FIP2; GLC1E; HIP7; HYPL; NRP; TFIIIA-INTP        |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)                                  |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                    |



[View online »](#)

**ORF Nucleotide Sequence:**

>RC202470 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCCCATCAACCTCTCAGCTGCCTCACTGAAAAGGAGGACAGCCCCAGTGAAAGCACAGGAAATGGAC  
 CCCCCACCTGGCCACCCAAACCTGGACACGTTTACCCGGAGGAGCTGCTGCAGCAGATGAAAGAGCT  
 CCTGACCGAGAACCACCGCTGAAAAGAAGCCATGAAGCTAAATAATCAAGCCATGAAAGGGAGATTTGAG  
 GAGCTTTCGCGCTGGACAGAGAAAACAGAAGGAAGAAGCCAGTTTTTTGAGATACAGAGCAAAGAAGCAA  
 AAGAGCGTCTAATGGCCTTGAGTCATGAGAATGAGAAATTGAAGGAAGAGCTTGGAAAATAAAAGGGAA  
 ATCAGAAAAGGTCTCTGAGGACCCCACTGATGACTCCAGGCTTCCAGGGCCGAGCGGAGCAGGAAAAG  
 GACCAGCTCAGGACCCAGGTGGTGGGCTACAAGCAGAGAAGGCAGACCTGTTGGGCATCGTGTCTGAAC  
 TGCAGCTCAAGCTGAACCCAGCGGCTCCTCAGAAGATTCCTTTGTTGAAATTAGGATGGCTGAAGGAGA  
 AGCAGAAGGGTCAGTAAAAGAAATCAAGCATAGTCCTGGGCCACGAGAACAGTCTCCACTGGCACGGCA  
 TTGTCTAAATATAGGAGCAGATCTGCAGATGGGGCCAAGAATTACTTCGAACATGAGGAGTTAACTGTGA  
 GCCAGCTCCTGTGTGCCTAAGGGAAGGGAATCAGAAGGTGGAGAGACTTGAAGTTGCACTCAAGGAGGC  
 CAAAGAAAGAGTTTCAAGATTTTGAAGAAAACAAGTAATCGTTCTGAGATTGAAACCCAGACAGAGGGG  
 AGCACAGAGAAAGAGAATGATGAAGAGAAAAGGCCCGGAGACTGTTGGAAGCGAAGTGAAGCACTGAACC  
 TCCAGGTGACATCTCTGTTTAAAGGAGCTCAAGAGGCTCATAAAAACTCAGCGAAGCTGAGCTAATGAA  
 GAAGAGACTTCAAGAAAAGTGTCAAGGCCCTTGAAGGAAAAATTCGCAATTCATCAGAGTTGAATGAA  
 AAGCAAGAGCTTGTATATACTAACAAAAAGTTAGAGCTACAAGTGAAAGCATGCTATCAGAAATCAAAA  
 TCGAACAGGCTAAAACAGAGGATGAAAAGTCCAATTAAGTGTCTACAGATGACACACAACAAGCTTCT  
 TCAAGAACATAAATGCATTGAAAACAATTGAGGAACTAACAGAAAAGAGTCAGAAAAAGTGGACAGG  
 GCAGTGTGAAGGAACTGAGTAAAAACTGGAAGTGGCAGAGAAGGCTCTGGCTTCCAAACAGCTGCAAA  
 TGGATGAAATGAAGCAAACATTGCCAAGCAGGAAGAGGACCTGGAAACCATGACCATCCTCAGGGCTCA  
 GATGGAAGTTTACTGTTCTGATTTTCTGCTGAAAGAGCAGCGAGAGAGAAAATTCATGAGGAAAAGGAG  
 CAACTGGCATTGCAGCTGGCAGTTCTGCTGAAAGAGAATGATGCTTTCGAAGACGGAGGCAGGCAGTCT  
 TGATGGAGATGCAGAGTCGTCATGGGGCAGACAAGTACTCTGACCAGCAGGCTTACCTTGTTCAAAG  
 AGGAGCTGAGGACAGGACTGGCGCAACAGCGGAATATCCGATTCATTCTGCCCAAGTGTGGAGAG  
 GTTCTGCCTGACATAGACACGTTACAGATTCACGTGATGGATTGCATCATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC202470 protein sequence  
 Red=Cloning site Green=Tags(s)

MSHQPLSCLTEKEDSPSESTGNPPLAHPNLDTFTPEELLQQMKELLTENHQLKEAMKLNQAMKGRFE  
 EL SAWTEKQKEERQFFEIQSKEAKERLMALSHENEKLKEELGKLGKRSERSEDPTDDSRLPRAEAEQEK  
 DQLRTQVVRLQAEKADLLGIVSELQLKLNSSGSEDSFVEIRMAEGEAEGSVKEIKHSPGPTRTVSTGTA  
 LSKYRSRSADGAKNYFEHEELTVSQQLLCLREGNQKVERLEVALKEAKERVSDFEKTSNRSEIETQTEG  
 STEKENDEEKGPETVGSEVEALNLQVTSLFKELQEHTKLSEAEMLKKRLQEKQALERKNSAIPSELNE  
 KQELVYTNKKLELQVESMLSEIKMEQAKTEDEKSKLTVLQMTNKLLEHNNALKTIEELTRKESEKVD  
 AVLKELSEKLELAEKALASKQLQMDMKQTIKQEEEDLETMTILRAQMEVYCSDFHAERAAREKIHEEKE  
 QLALQLAVLLKENDAFEDGGRQSLMEMQSRHGARTSDSDQQAYLVQRGAEDRDWRQQRNIPIHSCPKCGE  
 VLPDIDTLQIHVMDCII

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6575\\_c10.zip](https://cdn.origene.com/chromatograms/mk6575_c10.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001008211

**ORF Size:** 1731 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001008211.1](#), [NP\\_001008212.1](#)

**RefSeq Size:** 3597 bp

**RefSeq ORF:** 1734 bp

**Locus ID:** 10133

UniProt ID: [Q96CV9](#)

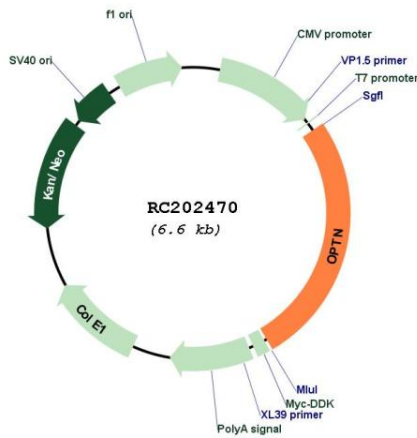
Cytogenetics: 10p13

Protein Families: Druggable Genome

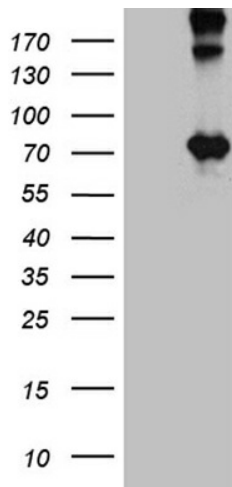
MW: 65.9 kDa

**Gene Summary:** 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]

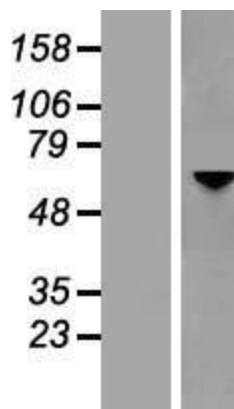
**Product images:**



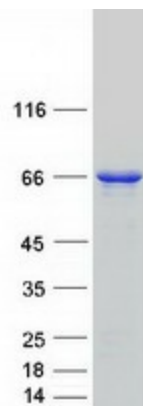
Circular map for RC202470



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY OPTN (Cat# RC202470, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-OPTN antibody (Cat# [TA812132]). Positive lysates [LY423390] (100ug) and [LC423390] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY423392]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC221836] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified OPTN protein (Cat# [TP302470]). The protein was produced from HEK293T cells transfected with OPTN cDNA clone (Cat# RC202470) using MegaTran 2.0 (Cat# [TT210002]).