

Product datasheet for **RC221792**

Optineurin (OPTN) (NM_021980) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Optineurin (OPTN) (NM_021980) 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)



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ORF Nucleotide Sequence:

>RC221792 representing NM_021980
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCCATCAACCTCTCAGCTGCCTCACTGAAAAGGAGGACAGCCCCAGTGAAAGCACAGGAAATGGAC
 CCCCCACCTGGCCACCCAAACCTGGACACGTTTACCCGGAGGAGCTGCTGCAGCAGATGAAAGAGCT
 CCTGACCGAGAACCACCGCTGAAAAGAAGCCATGAAGCTAAATAATCAAGCCATGAAAGGGAGATTTGAG
 GAGCTTTCGCGCTGGACAGAGAAAACAGAAGGAAGAAGCCAGTCTTTTGGATACAGAGCAAAGAAGCAA
 AAGAGCGTCTAATGGCCTTGAGTCATGAGAATGAGAAATTGAAGGAAGAGCTTGGAAAATAAAAGGGAA
 ATCAGAAAAGTCACTGAGGACCCCACTGATGACTCCAGGCTTCCAGGGCCGAAGCGGAGCAGGAAAAG
 GACCAGCTCAGGACCCAGGTGGTGGGCTACAAGCAGAGAAGGCAGACCTGTTGGGCATCGTGTCTGAAC
 TGCAGCTCAAGCTGAACCCAGCGGCTCCTCAGAAGATTCCTTTGTTGAAATTAGGATGGCTGAAGGAGA
 AGCAGAAGGGTCAGTAAAAGAAATCAAGCATAGTCTGGGCCACGAGAACAGTCTCCACTGGCACGGCA
 TTGTCTAAATATAGGAGCAGATCTGCAGATGGGGCCAAGAATTACTTCGAACATGAGGAGTTAACTGTGA
 GCCAGCTCCTGTGTGCCTAAGGAAGGGAATCAGAAGGTGGAGAGACTTGAAGTTGCACTCAAGGAGGC
 CAAAGAAAGAGTTTCAAGATTTTAAAAAGAAAACAAGTAATCGTTCTGAGATTGAAACCCAGACAGAGGGG
 AGCACAGAGAAAAGAGAATGATGAAGAGAAAAGGCCCGGAGACTGTTGGAAGCGAAGTGAAGCACTGAACC
 TCCAGGTGACATCTCTGTTTAAAGGAGCTCAAGAGGCTCATAAAAACTCAGCGAAGCTGAGCTAATGAA
 GAAGAGACTTCAAGAAAAGTGTCAAGGCCCTTGAAGGAAAAATCTGCAATTCATCAGAGTTGAATGAA
 AAGCAAGAGCTTGTATATACTAACAAAAAGTTAGAGCTACAAGTGAAAGCATGCTATCAGAAATCAAAA
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 TCAAGAACATAAATGCATTGAAAACAATTGAGGAACTAACAGAAAAGAGTCAGAAAAAGTGGACAGG
 GCAGTGTGAAGGAACTGAGTAAAAACTGGAAGTGGCAGAGAAGGCTCTGGCTTCCAAACAGCTGCAAA
 TGGATGAAATGAAGCAAACATTGCCAAGCAGGAAGAGGACCTGGAAACCATGACCATCCTCAGGGCTCA
 GATGGAAGTTTACTGTTCTGATTTTCTGCTGAAAGAGCAGCGAGAGAGAAAATTCATGAGGAAAAGGAG
 CAACTGGCATTGCAGCTGGCAGTCTGCTGAAAGAGAATGATGCTTTCGAAGACGGAGGCAGGCAGTCTCT
 TGATGGAGATGCAGAGTCGTCATGGGGCAGACAAGTACTCTGACCAGCAGGCTTACCTTGTTCAAAG
 AGGAGCTGAGGACAGGACTGGCGCAACAGCGGAATATTCGATTCTTCTGCCCAAGTGTGGAGAG
 GTTCTGCCTGACATAGACACGTTACAGATTCACGTGATGGATTGCATCATT

ACGCGTACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221792 representing NM_021980
 Red=Cloning site Green=Tags(s)

MSHQPLSCLTEKEDSPSESTGNPPLAHPNLDTFTPEELLQQMKELLTENHQLKEAMKLNQAMKGRFE
 EL SAWTEKQKEERQFFEIQSKEAKERLMALSHENEKLKEELGKLGKRSERSEDPTDDSRLPRAEAEQEK
 DQLRTQVVRLQAEKADLLGIVSELQLKLNSSGSEDSFVEIRMAEGEAEGSVKEIKHSPGPTRTVSTGTA
 LSKYRSRSADGAKNYFEHEELTVSLLLLCLREGNQKVERLEVALKEAKERVSDFEKTSNRSEIETQTEG
 STEKENDEEKGPETVGSEVEALNLQVTSLFKELQEHTKLSEAEMLKMKRLQEKQALERKNSAIPSELNE
 KQELVYTNKKLELQVESMLSEIKMEQAKTEDEKSKLTVLQMTNKLLEQHNNALKTIEELTRKESEKVD
 AVLKELSEKLELAEKALASKQLQMDMKQTIKQEEEDLETMTILRAQMEVYCSDFHAERAAREKIHEEKE
 QLALQLAVLLKENDAFEDGGRQSLMEMQSRHGARTSDSDQQAYLVQRGAEDRDWRQQRNIPIHSCPKCGE
 VLPDIDTLQIHVMDCII

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6575_c10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_021980

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.

RefSeq: [NM_021980.4](#), [NP_068815.2](#)

RefSeq Size: 3376 bp

RefSeq ORF: 1734 bp

Locus ID: 10133

UniProt ID: [Q96CV9](#)

Cytogenetics: 10p13

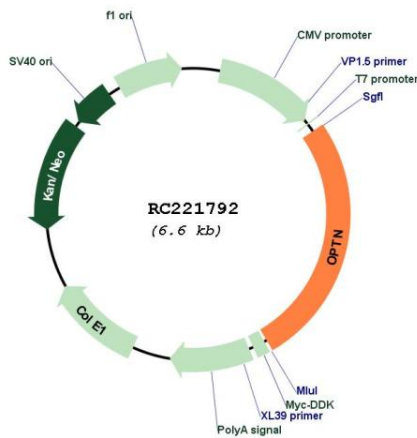
Domains: zf-C2H2

Protein Families: Druggable Genome

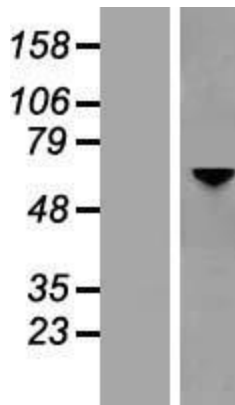
MW: 65.9 kDa

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 RC221792



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]).