

Product datasheet for RC202957

RTN4IP1 (NM_032730) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RTN4IP1 (NM_032730) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RTN4IP1
Synonyms:	NIMP; OPA10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202957 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAATTTCTGAAGACTTGTGTACTTAGAAGAAATGCATGCACTGCGGTTTGCTTCTGGAGAAGCAAAG
TTGTCCAAAGCCTTCAGTTAGAAGGATTAGTACTACCTCTCCTAGGAGCACTGTCATGCCTGCTGGGT
GATAGATAAATATGGGAAGAATGAAGTCTCGATTCCTCAGAACATGATGATGCCTATCATACTACT
CCAAATGAAGTCATTGTCAAAGTTCACGCTGCCAGTGAAATCCTATAGACGTTAATATGAGAAGTGTT
ATGGAGCTACAGCTTTAAATATGAAGCGTGATCCTTTACACGTGAAAATCAAAGGAGAAGAATTTCTCT
GACTCTGGGTCGGGATGTCTCTGGCGTGGTGATGGAATGTGGGCTTGATGTGAAATACTCAAGCCTGGA
GATGAGGTCTGGGCTGCAGTTCCTCCTTGAAACAAGGCACTCTTTCAGAGTTTGTGTAGTCAGTGGGA
ATGAGGTCTCTCACAACCCAAATCACTCACTCATACTCAAGCTGCCTCTTTGCCATATGTGGCTCTCAC
AGCCTGGTCTGCTATAAACAAAGTTGGTGGCCTGAATGACAAGAATTGCACAGGAAAACGTGTTCTAATC
TTAGGCGCTTCAGGCGGAGTTGGTACTTTTGTATACAGGTAATGAAAGCATGGGATGCTCATGTGACAG
CAGTTTGCTCCCAAGATGCCAGTGAACCTGTAAGGAAGCTTGGTGCAGACGATGTAATTGATTACAAATC
TGGAAGTGTGGAAGAGCAGTTGAAATCCTTAAAACCATTTGATTTTATCCTTGATAATGTTGGCGGATCC
ACTGAAACATGGGCTCCAGATTTTCTCAAGAAATGGTCAGGACCACTATGTGACTTTGGTGACTCCTT
TCCTCCTGAACATGGACCGATTGGGCATAGCAGATGGCATGTTGCAGACAGGAGTCACTGTAGGTTCAAA
GGCATTAAAGCATTTCTGAAAGGAGTCCATTATCGCTGGGCATTTTTCATGGCCAGTGGCCCATGTTTA
GATGACATTGCAGAACTGGTGGATGCGGAAAAGATCCGGCCAGTTATTGAACAAACCTTTCTTTTCTA
AAGTTCCAGAAGCCTTCTGAAGGTGAAAGAGGACACGCACGAGGAAAGACTGTAATTAATGTTGTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202957 protein sequence
Red=Cloning site Green=Tags(s)

MEFLKTCVLRNACTAVCFWRSKVVQKPSVRRISTTSPRSTVMPAWIDKYGKNEVLRFTQNMMPPIIHY
 PNEVIVKVHAASVNPIDVNMRSYGATALNMKRDPLHVKIKGEEFPLTLGRDVSQVVMCEGLDVKYFKPG
 DEVWAAVPPWKQGTLESEFVVVSGNEVSHKPKSLTHTQAASLPYVALTAWSAINKVGLNDKNCCTGKRVLI
 LGASGGVGTFAIQVMKAWDHVTAVCSQDASELVRKLGADDVIDYKSGSVEEQKSLKPFDFILDNVGGS
 TETWAPDFLKKWSGATYVTLVTPFLLNMDRLGIADGMLQTGVTGSKALKHFVKGVHYRWAFFMASGPCL
 DDIAELVDAGKIRPVIEQTFPFKSKVPEAFLKVERGHARGKTVINVV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6411_b03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_032730

ORF Size: 1188 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_032730.5](#)

RefSeq Size: 2636 bp

RefSeq ORF: 1191 bp

Locus ID: 84816

UniProt ID: [Q8WWV3](#)

Cytogenetics: 6q21

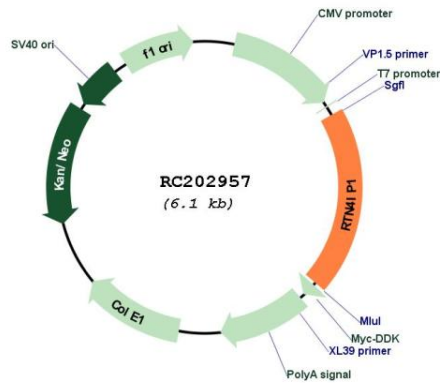
Domains: ADH_zinc_N

Protein Families: Druggable Genome

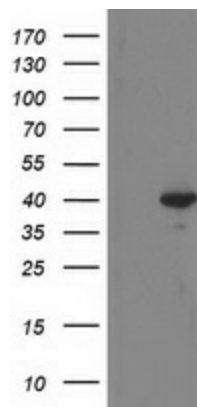
MW: 43.6 kDa

Gene Summary: This gene encodes a mitochondrial protein that interacts with reticulon 4, which is a potent inhibitor of regeneration following spinal cord injury. This interaction may be important for reticulon-induced inhibition of neurite growth. Mutations in this gene can cause optic atrophy 10, with or without ataxia, cognitive disability, and seizures. There is a pseudogene for this gene on chromosome 12. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]

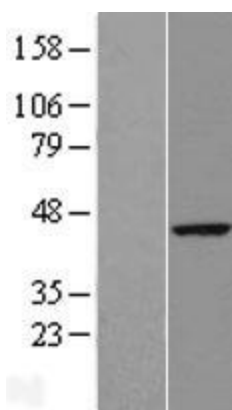
Product images:



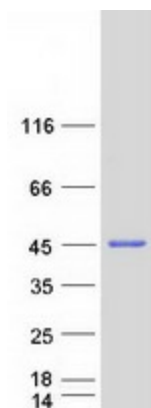
Circular map for RC202957



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RTN4IP1 (Cat# RC202957, 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-RTN4IP1 (Cat# [TA502544]). Positive lysates [LY409966] (100ug) and [LC409966] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY409966]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202957 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RTN4IP1 protein (Cat# [TP302957]). The protein was produced from HEK293T cells transfected with RTN4IP1 cDNA clone (Cat# RC202957) using MegaTran 2.0 (Cat# [TT210002]).