

## Product datasheet for **RC210930**

### **TOR1AIP2 (NM\_145034) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TOR1AIP2 (NM_145034) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TOR1AIP2
Synonyms:	IFRG15; LULL1; NET9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC210930 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCGACAGTGGACTTAGGGAACCTCAAGAGGACTCTCAAAGGATTTGGAAAATGATCCATCAGTAA  
 ATTCTCAGGCGCAGGAGACCACAATCATAGCAAGTAATGCTGAAGAAGCTGAGATCTACTACTCTGCCTG  
 TGGTCTTAGCAAAGACCACCAAGAGGTAGAGACAGAAGGTCCAGAAAAGTGACAGATACAGGTGATAAATCA  
 GAAAGTCCAGATGAAGCAAATGTGGGAAAACATCCAAAGGATAAAACAGAAGATGAGAACAAGCAGAGTT  
 TTCTGGATGGCGGAAAAGGGCATCACCTCCCTCAGAAAATCTGGGTAAAGAACCCTTGGATCCAGATCC  
 CAGCCATTCTCCAAGTGACAAGGTAGGAAGAGCAGATGCACACTAGGGAGCAGCTCTGTGGCCCTCCCT  
 AAGGAAGCGAGTGACGGAAGTGGAGCATCTCAGGAACCACCTACTACAGACTCCCAGGAGGCCAGAGTC  
 CTGGTCATTCCAGTGCAGGGCAAGAGGGTGAAGATACACTGAGGAGGCGACTGCTGGCCCCAGAGGCTGG  
 AAGTCATCCACAACAAACAAAAAATTGGAAGAAATTAAGAGAATGCACAGGACACCATGAGACAGATT  
 AATAAAAAGGGTTTTTGGAGCTATGGCCCTGTGATTCTTGTCTGCTCGTGGTTGTGGCTGTTGTGGCAAGTT  
 CTGTGAATAGCTACTATTCCTCTCCAGCCAGCAAGTGCCCAAAAATCCAGCTTTGGAGGCCTTTTTGGC  
 CCAGTTTAGCCAATTGGAAGATAAATTTCCAGGCCAGAGTTTCTTCTGTGGCAGAGAGGACGGAAGTTT  
 CTCCAGAAGCACCTCAATGCTTCCAACCCCACTGAGCCAGCCACCATCATATTTACAGCAGCTCGGGAGG  
 GAAGAGAGACCCTGAAGTGCCTGAGCCACCATGTTGCAGATGCCTACACCTCTTCCAGAAAAGTCTCTCC  
 CATTGAGATTGATGGGGCTGGAAGGACCTGGCAGGACAGTGACACGGTCAAGCTGTTGGTTGACCTGGAG  
 CTGAGCTATGGGTTTGAAGTGGCCAGAAGGCTGCTGTGGTACACCACTTCGAATCCCTCCCTGCCGGCT  
 CCACTTTGATCTCTATAAGTATTGTGATCATGAGAATGCTGCCTTTAAGATGTGGCCCTGGTCTGAC  
 TGTCTGCTAGAGGAGGAACATTAGAAGCAAGTGTAGGCCAAGGAAAACGGAAGAAAAAGTGAGAGAC  
 TTAATCTGGGCCAAGTTTACCAACTCTGACACTCCACCTCCTTCAACCACATGGACTCAGACAAATTGA  
 GTGGGCTGTGGAGCCGAATTTACACCTGGTACTGCCAGTCCAGCCAGTGAAGTACATAGAAGAACAGGG  
 GTGCCTTTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210930 protein sequence  
 Red=Cloning site Green=Tags(s)

MADSGLEPQEDSQKDLNDPSVNSQAQETTIIASNAEEAEILHSACGLSKDHQEVETEGPESADTGDKS  
 ESPDEANVGKHPKDKTEDEKQSFLDGGKGHLLPSENLGKEPLDPDPSPSHSPDKVGRADAHLGSSSVLALP  
 KEASDGTGASQEPPTTDSQEAQSPGHSSAGQEGEDTLRRRLLAPEAGSHPQQTQKLEEKENAQDTMRQI  
 NKKGFWSYGPVILVVLVAVVASSVNSYSSPAQQVQKPNPALEAFLAQFSQLEDKFPQSSFLWQRGRKF  
 LQKHLNASNPTEPATIIFTAAREGRETLKCLSHHVADAYTSSQKVSPIQIDGAGRTWQSDTVKLLVDLE  
 LSYGFENGQKAAVVHVFESFPAGSTLIFYKYCDHENAFAKDVALLVTVLLEEETLEASVGPTEEEKVVRD  
 LLWAKFTNSDTPTSFNHMDSDKLSGLWSRISHLVLPVQPVSSIEEQGLF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6130\\_a05.zip](https://cdn.origene.com/chromatograms/mk6130_a05.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_145034

**ORF Size:** 1410 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\\_145034.5](#)

**RefSeq Size:** 7912 bp

**RefSeq ORF:** 1413 bp

**Locus ID:** 163590

**UniProt ID:** [Q8NFO8](#)

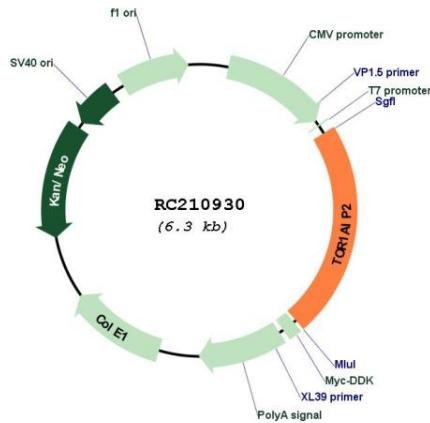
**Cytogenetics:** 1q25.2

**Protein Families:** Transmembrane

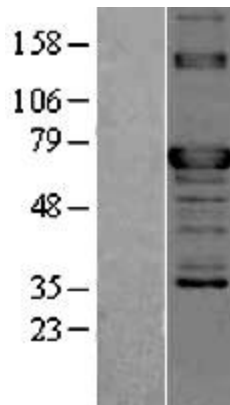
**MW:** 51.3 kDa

**Gene Summary:** One of the two protein isoforms encoded by this gene is a type II integral membrane protein found in the endoplasmic reticulum (ER). The encoded protein is a cofactor for the ATPase TorsinA, regulating the amount of TorsinA present in the ER compared to that found in the nuclear envelope. Defects in this protein are a cause of early onset primary dystonia, a neuromuscular disease. The other isoform encoded by this gene is an interferon alpha responsive protein whose cellular role has yet to be determined. [provided by RefSeq, Mar 2017]

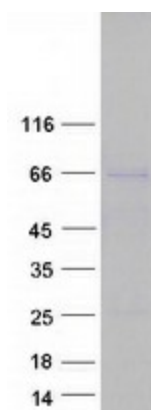
**Product images:**



Circular map for RC210930



Western blot validation of overexpression lysate (Cat# [LY403416]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210930 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TOR1AIP2 protein (Cat# [TP310930]). The protein was produced from HEK293T cells transfected with TOR1AIP2 cDNA clone (Cat# RC210930) using MegaTran 2.0 (Cat# [TT210002]).