

## Product datasheet for RC231181

### Aprataxin (APTX) (NM\_001195248) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aprataxin (APTX) (NM_001195248) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aprataxin
Synonyms:	AOA; AOA1; AXA1; EAOH; EOAHA; FHA-HIT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC231181 representing NM_001195248 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAGTAACTGAATTTGTCCGCTCCGACTTCTGGAGAGTGATGATGCGGGTGTGCTGGTTGGTGAGAC  
AGGACAGCCGGCACCAGCGAATCAGACTTCCACATTTGGAAGCAGTTGTGATTGGCGTGGCCAGAGAC  
CAAGATCACTGATAAGAAATGTTCTCGACAGCAAGTACAGTTGAAAGCAGAGTGAACAAGGGATATGTC  
AAGGTAAGCAGGTAGGAGTCAATCCCACCAGCATTGACTCAGTCGTAATTGGGAAGGACCAAGAGGTGA  
AGCTGCAGCCTGGCCAGGTTCTCCACATGGTGAATGAACTTTATCCATATATTGTAGAGTTTGAGGAAGA  
GGCAAAGAACCCTGGCCTGGAAACACACAGGAAGAGAAAGAGATCAGGCAACAGTGATTCTATAGAAAGG  
GATGCTGCTCAGGAAGCTGAGGCTGGGACAGGGCTGGAACCTGGGAGCAACTCTGGCCAATGCTCTGTGC  
CCCTAAAGAAGGGAAAAGATGCACCTATCAAAAAGGAATCCCTGGGCCACTGGAGTCAAGGCTTGAAGAT  
TTCTATGCAGGACCCCAAATGCAGGTTTACAAAGATGAGCAGGTGGTGGTGATAAAGGATAAATACCCA  
AAGGCCGTTACCATTGGCTGGTCTTACCGTGGACCTCCATTTCCAGTCTGAAGGCTGTGGCCAGGGAAC  
ACCTTGAACCTCCTAAGCATATGCACACTGTGGGGAAAAGGTGATTGTAGATTTTGTGGTCCAGCAA  
ACTCCGCTTCCGATTGGGCTACCAGCCATTCCGAGTATGAGCCATGTACATCTCATGTGATCAGCCAG  
GATTTTGATTCTCCTTGCCTTAAAAACAAAAACATTGGAATTTTCAATACAGAATACTCCTAGAAT  
CACAAGCTGTGATCGAGATGGTACAAGAGGCTGGTAGAGTAAGTACTGTCGAGATGGGATGCCTGAGCTCTT  
GAAGCTGCCCTTCGTTGTCATGAGTGCCAGCAGCTGCTGCCTTCCATTCCCTCAGCTGAAAGAACATCTC  
AGGAAGCACTGGACACAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC231181 representing NM\_001195248  
Red=Cloning site Green=Tags(s)

MSNVNLSVSDFWRVMMRVCWLVRQDSRHQRIRLPHLEAVVIGRGPETKITDKKCSRQVQLKAECNKGYY  
 KVKQVGVNPTSIDSVVIGKDQEVKLQPGQVLHVMNELYPYIVEFEEEAKNPGLETHRKRKRSNGSNDSTIER  
 DAAQEAAGTGLEPGSNSGQCSVPLKKGKDAPIKKESLGHWSQGLKISMQDPKMQVYKDEQVVVIKDKYP  
 KARYHWLVLPWTSISSLKAVAREHLELLKHMHTVGEKVI VDFAGSSKLRFRLYGHAIPSMHVHLHVISQ  
 DFDSPCLKNKKHWNSFNTEYFLESQAVIEMVQEAGRVTVRDGMPELLKPLRCHECQQLLPSIPQLKEHL  
 RKHWTQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8054\\_b01.zip](https://cdn.origene.com/chromatograms/mk8054_b01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001195248

**ORF Size:** 1068 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\\_001195248.1](#), [NP\\_001182177.1](#)

**RefSeq ORF:** 1029 bp

**Locus ID:** 54840

**UniProt ID:** [Q7Z2E3](#)

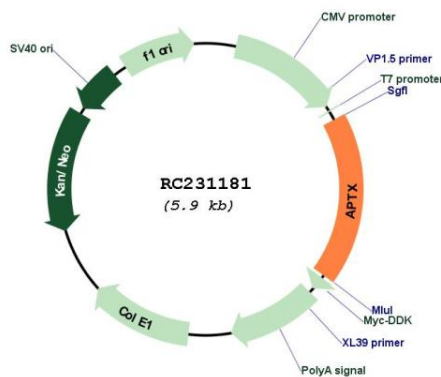
**Cytogenetics:** 9p21.1

**Protein Families:** Druggable Genome

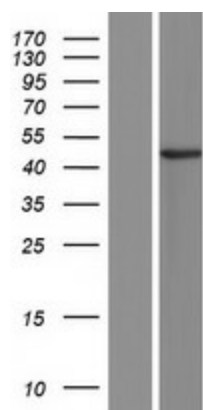
**MW:** 41.2 kDa

**Gene Summary:** This gene encodes a member of the histidine triad (HIT) superfamily. The encoded protein may play a role in single-stranded DNA repair through its nucleotide-binding activity and its diadenosine polyphosphate hydrolase activity. Mutations in this gene have been associated with ataxia-ocular apraxia. Alternatively spliced transcript variants have been identified for this gene.[provided by RefSeq, Aug 2010]

## Product images:



Circular map for RC231181



Western blot validation of overexpression lysate (Cat# [LY434180]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231181 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).