

Product datasheet for **RG220799**

Aprataxin (APTX) (NM_175073) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aprataxin (APTX) (NM_175073) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	APTX
Synonyms:	AOA; AOA1; AXA1; EAOH; EOAHA; FHA-HIT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220799 representing NM_175073 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGCGGGTGTGCTGGTTGGTGAGACAGGACAGCCGGCACCAGCGAATCAGACTTCCACATTTGGAAG
CAGTTGTGATTGGGCGTGGCCAGAGACCAAGATCACTGATAAGAAATGTTCTCGACAGCAAGTACAGTT
GAAAGCAGAGTGAACAAGGGATATGTCAAGGTAAGCAGGTAGGAGTCAATCCCACCAGCATTGACTCA
GTCGTAATTGGGAAGGACCAAGAGGTGAAGCTGCAGCCTGGCCAGGTTCTCCACATGGTGAATGAACTTT
ATCCATATATTGTAGAGTTTGGGAAGAGGCAAAGAACCCTGGCCTGGAACACACAGGAAGAGAAAGAG
ATCAGGCAACAGTGATTCTATAGAAAGGGATGCTGCTCAGGAAGCTGAGGCTGGGACAGGGCTGGAACCT
GGGAGCAACTCTGGCCAATGCTCTGTGCCCTAAAGAAGGAAAAAGATGCACCTATCAAAAAGGAATCCC
TGGGCCACTGGAGTCAAGGCTTGAAGATTTCTATGCAGGACCCCAAAATGCAGGTTTACAAAAGATGAGCA
GGTGGTGGTGATAAAGGATAAATACCCAAGGCCCGTTACCATTGGCTGGTCTTACCGTGGACCTCCATT
TCCAGTCTGAAGGCTGTGGCCAGGGAACACCTTGAACCTTAAGCATATGCACACTGTGGGGAAAAAGG
TGATTGTAGATTTGCTGGGTCCAGCAAACCTCCGCTTCCGATTGGGCTACCACGCCATCCGAGTATGAG
CCATGTACATCTTCATGTGATCAGCCAGGATTTGATTCTCCTTGCCTTAAAAACAAAAACATTGGAAT
TCTTTCAATACAGAATACTTCTAGAATCACAAGCTGTGATCGAGATGGTACAAGAGGCTGGTAGAGTAA
CTGTCCGAGATGGGATGCCTGAGCTCTTGAAGCTGCCCTTCGTTGTGATGAGTGCCAGCAGCTGCTGCC
TTCCATTCTCAGCTGAAAGAACATCTCAGGAAGCACTGGACACAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG220799 representing NM_175073
 Red=Cloning site Green=Tags(s)

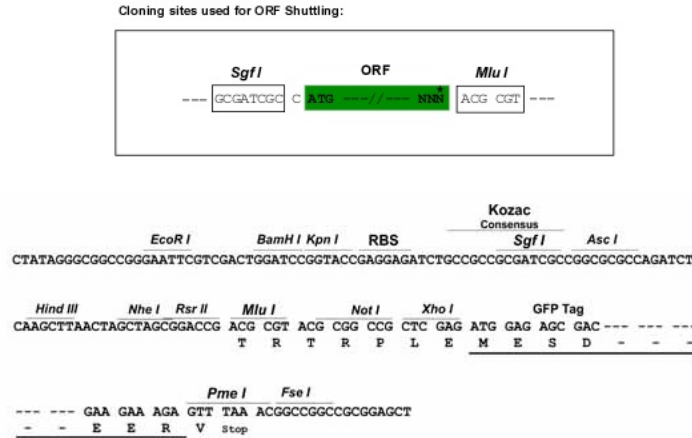
MMRVCWLVRQDSRHQRIRLPHLEAVVIGRGPETKITDKKCSRQQVQLKAECNKGYVKVKQVGVNPTSIDS
 VVIGKDQEVKLQPGQVLHMVNLYPYIVEFEFEEAKNPGLETHRRKRKSGNSDSIERDAAQEAEAGTGLEP
 GSNSGQCSVPLKKGDAPIKKESLGHWSQGLKISMQDPKMQVYKDEQVVVVKDKYPKARYHWLVLPTWSI
 SSLKAVAREHELLELLKHMHTVGEKVIIVDFAGSSKLRFRLYHAIPSMHVHLHVISQDFDSPCLKNKKHWN
 SFNTEYFLESQAVIEMVQEAGRVTVRDGMPELLKPLRCHECQQLLPSIPQLKEHLRKHWTQ

TRTRPLE - GFP Tag - V

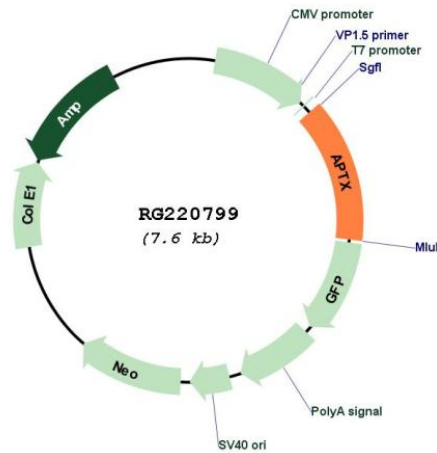
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_175073

ORF Size: 2113 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_175073.2](#), [NP_778243.1](#)

RefSeq Size: 2086 bp

RefSeq ORF: 1029 bp

Locus ID: 54840

UniProt ID: [Q7Z2E3](#)

Cytogenetics: 9p21.1

Protein Families: Druggable Genome

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]