

Product datasheet for **MG218020**

Aptx (NM_025545) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aptx (NM_025545) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aptx
Synonyms:	2410016G21Rik; AA388047; FHA-HIT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG218020 representing NM_025545 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGGAAGCAGTAGCTAAGATGCGAGTGTGCTGGTTGGTGAGACAGGACAGCAGGCACCAGCGAATCA
AACTTCCCCATTTGGAAGCTGTTGTGATTGGTCGAAGCCAGAGACCAAGATCACAGATAAGAAATGTTCC
CCGACAGCAAGTACAGTTGAAAGCAGAGTGAACAAGGGATATGTCAAAGTACAGCAGATGGGGTCAAC
CCCACCAGCATTGACTCGGGCGTCATCGGAAGGACCAAGAGAAGAAGCTGCTGCCTGGTCAGTTCTCC
ACATGGTGAATGGACTTTATCCATACATCGTAGAGTTTGAGGAAGTGGCAGAGAGCCCTAACCTAACACA
GAGGAAGAGAAAAGAGGTCAGACTGTGATAGTGAGGAGATGGAAGCTGAGTCTGGGACAGGGCTGGCACCT
GGGAGCAGCCCCAGCCAGTGCTCTGTGTCCCCTAAGAAGGACAAGAATGGAGCCACCAAAAAGGAATCAC
TGGGCCACTGGAGTCAAGGCTTGAAGATGTCTATGAAAGACCCCAAAATGCAGGTTTACAAAAGACGACCA
GGTGGTGGTGATTAAGGATAAATACCCCAAGGCCCGTCACCACTGGCTGGTCTTACCGTGGGCTCCATT
TCCAGTCTGAAGGTTGTGACCAGTGAACACCTTGAACCTTCAACATATGCACGCTGTGGGGGAGAAGG
TGATAGCAGATTTTGTGGATCCAGCAAAGTGCCTCCGATTGGGCTACCATGCCATTCAGCATGAG
CCACGTACATCTTCATGTGATCAGCCAGGATTTTGATTCTCCTTGCCCTAAAAACAAAAGCATTGGAAT
TCTTTTAAACAGAATACTTTCTGGAATCACAAGCTGTGATCAAGATGGTTCAGGAAGCCGGCAGAGTGA
CTGTTAAAGATGGCACTTGTGAGCTCTTGAAGCTGCCTCCTCGTTGCCATGAGTGCAGCAGCTGCTGCC
TTCCATCCCGCAGCTGAAAGAGCACCTCAGGAAGCACTGGGGCGGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG218020 representing NM_025545
Red=Cloning site Green=Tags(s)

MPEAVAKMRVCWLVQRQDSRHQRIKLPHEAVVIGRSPETKITDKKCSRQQVQLKAECNKGYVKVQVMGVN
 PTSIDSGVIGKDQEKLLPGQVLHMVNGLYPIIVEFEEVAESPNLTQRKRKRSDCDSEEMAEESGTGLAP
 GSSPSQCSVSPKKDKNGATKKESLGHWSQGLKMSMKDPKMVYKDDQVVVVKDKYPKARHHWLVLPWASI
 SSLKVVVTEHLELLKMHAVGEKVIADFAGSSKLRFRLLGYHAIPSMHVHLHVISQDFDSPCLKNKKHWN
 SFNTEYFLESQAVIKMVQEAGRVTYKDGTCCELLKPLRCHCECQQLLPSPQLKEHLRKHGG

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja3125_g01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_025545

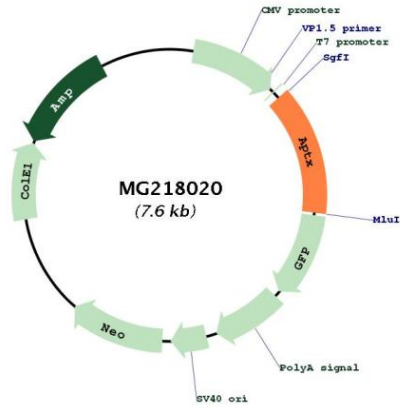
ORF Size: 1026 bp

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:	<ol style="list-style-type: none">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_025545.4 , NP_079821.3
RefSeq Size:	5689 bp
RefSeq ORF:	1029 bp
Locus ID:	66408
UniProt ID:	Q7TQC5
Cytogenetics:	4 A5
Gene Summary:	DNA-binding protein involved in single-strand DNA break repair, double-strand DNA break repair and base excision repair. Resolves abortive DNA ligation intermediates formed either at base excision sites, or when DNA ligases attempt to repair non-ligatable breaks induced by reactive oxygen species. Catalyzes the release of adenylate groups covalently linked to 5'-phosphate termini, resulting in the production of 5'-phosphate termini that can be efficiently rejoined (PubMed:16964241). Also able to hydrolyze adenosine 5'-monophosphoramidate (AMP-NH ₂) and diadenosine tetraphosphate (AppppA), but with lower catalytic activity (By similarity). Likewise, catalyzes the release of 3'-linked guanosine (DNAppG) and inosine (DNAppI) from DNA, but has higher specific activity with 5'-linked adenosine (AppDNA) (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG218020