

## Product datasheet for **MR218020**

### Aptx (NM\_025545) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aptx (NM_025545) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aptx
Synonyms:	2410016G21Rik; AA388047; FHA-HIT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR218020 representing NM_025545 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCGGAAGCAGTAGCTAAGATGCGAGTGTGCTGGTTGGTGAGACAGGACAGCAGGCACCAGCGAATCA  
AACTTCCCCATTTGGAAGCTGTTGTGATTGGTCGAAGCCAGAGACCAAGATCACAGATAAGAAATGTTCC  
CCGACAGCAAGTACAGTTGAAAGCAGAGTGTAACAAGGGATATGTCAAAGTACAGCAGATGGGGTCAAC  
CCCACCAGCATTGACTCGGGCGTCATCGGAAGGACCAAGAGAAGAAGCTGCTGCCTGGTCAGGTTCTCC  
ACATGGTGAATGGACTTTATCCATACATCGTAGAGTTTGAGGAAGTGGCAGAGAGCCCTAACCTAACACA  
GAGGAAGAGAAAGAGGTCAGACTGTGATAGTGAGGAGATGGAAGCTGAGTCTGGGACAGGGCTGGCACCT  
GGGAGCAGCCCCAGCCAGTGCTCTGTGTCCCCTAAGAAGGACAAGAATGGAGCCACCAAAAAGGAATCAC  
TGGGCCACTGGAGTCAAGGCTTGAAGATGTCTATGAAAGACCCCAAAATGCAGGTTTACAAAGACGACCA  
GGTGGTGGTGATTAAGGATAAATACCCAAGGCCCGTCACCACTGGCTGGTCTTACCGTGGGCCTCCATT  
TCCAGTCTGAAGGTTGTGACCAGTGAACACCTTGAACCTCTCAACATATGCACGCTGTGGGGGAGAAGG  
TGATAGCAGATTTTGTGGATCCAGCAAAGTGCCTTCCGATTGGGCTACCATGCCATTCACGATGAG  
CCACGTACATCTTCATGTGATCAGCCAGGATTTTGATTCTCCTTGCCCTTAAAAACAAAAGCATTGGAAT  
TCTTTTAATACAGAATACTTTCTGGAATCACAAGCTGTGATCAAGATGGTTCAGGAAGCCGCGCAGAGTGA  
CTGTTAAAGATGGCACTTGTGAGCTCTTGAAGCTGCCTCTCCGTTGCCATGAGTGTGCAGAGCTGCTGCC  
TTCCATCCCGCAGCTGAAAGAGCACCTCAGGAAGCACTGGGGCGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR218020 representing NM\_025545  
 Red=Cloning site Green=Tags(s)

MPEAVAKMRVCWLVRQDSRHQRIKLPHLEAVVIGRSPETKITDKKCSRQQVQLKAECNKGYYKVQQMGMVN  
 PTSIDSGVIGKDQEKLLPGQVLHVMNGLYPYIVEFEEVAESPNLTQRKRKSDCDSEEMAEESGTGLAP  
 GSSPSQCSVSPKKDKNGATKKESLGHWSQGLKMSMKDPKMQVYKDDQVVVVDKYPKARHHLVLPWASI  
 SSLKVVTSEHLELLKHMHAVGEKVIADFAGSSKLRFRLLGYHAIPSMHVHLHVISQDFDSPCLKNKKHWN  
 SFNTEYFLESQAVIKMVQEAGRVTYKDGTELLKPLRCHECQQLLPSIPQLKEHLRKHGG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_025545

**ORF Size:** 1026 bp

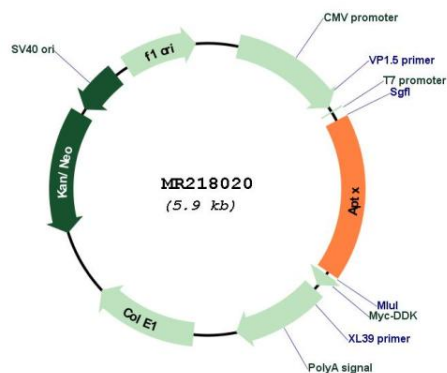
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_025545.4, NP_079821.3</u>
<b>RefSeq Size:</b>	5689 bp
<b>RefSeq ORF:</b>	1029 bp
<b>Locus ID:</b>	66408
<b>UniProt ID:</b>	<u>Q7TQC5</u>
<b>Cytogenetics:</b>	4 A5
<b>MW:</b>	39.2 kDa
<b>Gene Summary:</b>	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 MR218020