

## 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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCGGAAGCAGTAGCTAAGATGCGAGTGTGCTGGTTGGTGAGACAGGACAGCAGGCACCAGCGAATCA  
 AACTTCCCCATTTGGAAGCTGTTGTGATTGGTTCGAAGCCAGAGACCAAGATCACAGATAAGAAATGTTT  
 CCGACAGCAAGTACAGTTGAAAGCAGAGTGAACAAGGGATATGTCAAAGTACAGCAGATGGGGTCAAC  
 CCCACCAGCATTGACTCGGGCGTCATCGGAAGGACCAAGAGAAGAAGCTGCTGCCTGGTCAGTTCTCC  
 ACATGGTGAATGGACTTTATCCATACATCGTAGAGTTTGAGGAAGTGGCAGAGAGCCCTAACCTAACACA  
 GAGGAAGAGAAAGAGGTCAGACTGTGATAGTGAGGAGATGGAAGCTGAGTCTGGGACAGGGCTGGCACCT  
 GGGAGCAGCCCCAGCCAGTGCTCTGTGTCCCCTAAGAAGGACAAGAATGGAGCCACCAAAAAGGAATCAC  
 TGGGCCACTGGAGTCAAGGCTTGAAGATGTCTATGAAAGACCCCAAAATGCAGGTTTACAAAAGACGACCA  
 GGTGGTGGTGATTAAGGATAAATACCCCAAGGCCCGTCACCACTGGCTGGTCTTACCGTGGGCTCCATT  
 TCCAGTCTGAAGTTGTGACCAGTGAACACCTTGAACCTTCTCAAACATATGCACGCTGTGGGGGAGAAGG  
 TGATAGCAGATTTTGTGGATCCAGCAAAGTGCCTCCGATTGGGCTACCATGCCATCCCAGCATGAG  
 CCACGTACATCTCATGTGATCAGCCAGGATTTTGATTCTCCTTGCCCTAAAAACAAAAGCATTGGAAT  
 TCTTTTAAACAGAATACTTTCTGGAATCACAAGCTGTGATCAAGATGGTTCAGGAAGCCCGCAGAGTGA  
 CTGTTAAAGATGGCACTTGTGAGCTCTTGAAGCTGCCTCTCCGTTGCCATGAGTGCAGCAGCTGCTGCC  
 TTCCATCCCGCAGCTGAAAGAGCACCTCAGGAAGCACTGGGGCGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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

MPEAVAKMRCWLVRQDSRHQRIKLPHEAVVIGRSPETKITDKKCSRQQVQLKAECNKGYVKVQQMGMVN  
 PTSIDSGVIGKDQEKLLPGQVLHMVNGLYPIYIVFEEVAESPNLTQRKRKRSDCDEEMEAESGTGLAP  
 GSSPSQCSVSPKKDKNGATKKESLGHWSQGLKMSMKDPKMVYKDDQVVVVKDKYPKARHHWLVLPWASI  
 SSLKVVTSEHLELLKHMHAVGEKVIADFGSSKLRFRLLGYHAIPSMHVHLHVISQDFDSPCLKNKKHWN  
 SFNTEYFLESQAVIKMVQEAGRVTYKDGTCCELLKPLRCHECQQLLPSIPQLKEHLRKHGG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_025545

**ORF Size:** 1026 bp

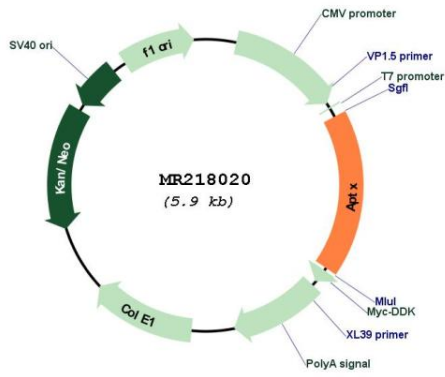
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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>RefSeq:</b>	<u><a href="#">NM_025545.4</a></u> , <u><a href="#">NP_079821.3</a></u>
<b>RefSeq Size:</b>	5689 bp
<b>RefSeq ORF:</b>	1029 bp
<b>Locus ID:</b>	66408
<b>UniProt ID:</b>	<u><a href="#">Q7TQC5</a></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 <sub>2</sub> ) 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