

## Product datasheet for **RC218027**

### **PAN3 (NM\_175854) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PAN3 (NM_175854) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAN3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC218027 representing NM\_175854  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGGATGGAGGTGCTTTAACTGATACAAGTCTCACAGATTCCTATTTTAGCACCAGCTTTATTGGAGTCA  
ATGGATTTGGAAGCCCTGTAGAAACAAAATATCCCTGATGCAGAGAATGACTAATAGTAGCAGCTCCCC  
AAGCCTTCTAAATGACAGTGCCAAGCCATATTCAGCCCATGATCCTCTAACATCACCTGCTTCATCCTTG  
TTAATGACTTTGGTGCCTCAACATCTCTCAGAGACGAAAGACACCAAATCCTACTGCAAGCGAGTTTA  
TTCCTAAAGGAGGATCAACCTCCAGGCTGAGTAACGTGTCCCAGTCAAATATGTCTGCCTTCTCTCAAGT  
TTTCTCTACCCATCCATGGGAAGCCCTGCTACTGCTGGATTAGCGCCAGGAATGCTGTTGTCTGCTGGG  
TCTTCCCCTTTCATTCCCCAAGATTACTCCACATACTTCTCCTGCTCCAGAAGAAGAAGTCACTC  
CAAATCCAGCAAGTTACATGGTGCCTTCTAGTGCCTCTACATCTGTTAATAATCCTGTTTCTCAGACTCC  
GTCTTCTGGTCAGGTGATCCAAAAGGAACTGTTGGTGGGACGACTTACTTCTATACAGACACAACCTCCA  
GCACCTTTGACTGGAATGGTGTTCCAAATATCATATTTATCCTCCAACCTGCACCTCACGTTGCTTATA  
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TTAATAACAATGGCTCAAATTGATCAAGCAGATATGCCAGCAGTTTCTACAGAGGTTGACAGCTACCAT  
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TTGCGTGAAGTATTTACCACTAAAGCATTGCTGAGCCCTCTCTGTGTTTGCATATGATTTCCATGCTG  
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GGAAAAGTTGTGTTGGCTTTGGCTTGAACCTCTTGGCAGGAATTCAGCGAGAGAATTTACAGAAAGCCA  
TGGAACCTGGTACAATCAACTATTCCTCTGACCTGAAGAATCTGATTTTGTATTTGTTGACTGACCAAAA  
CAGGATGCGAAGTGAATGACATCATGCCATGATTGGTGTCTGATTTTATACTCAATTGGATGCTGCT  
CAAATGAGAAATGATGTCATAGAGGAAGACCTTGCAAAGGAGTTCAAATGGAAGACTGTTTAGGCTCC  
TAGCAAAATTGGGAACAATCAATGAGAGCCGGAGTTTCAGAAGGATCCCACTTGGTCAGAGACTGGAGA  
CCGTTATCTGTTGAAACTCTTTAGGGATCATCTTTTTATCAGGTGACAGAAGCAGGTGCTCCCTGGATT  
GACCTCAGTCATAAATTTCTGTCTTAAACAAGCTAGATGCTGGTGTGCCAGAAAAATAAGCCTGATTT  
CCAGAGATGAGAAGAGTGTACTTGTGGTGACCTACAGTGACTTAAAGCGCTGCTTTGAAAATACTTTTCA  
AGAACTGATTGCAGCTGCAATGGTCAGTTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC218027 representing NM\_175854  
Red=Cloning site Green=Tags(s)

```
MDGGAL TDTSL TDSYF STSFIGVNGFGSPVETKYPLMQRMTNSSSSPSSLNDSAKPYS AHDPLTSPASSL
FNDFGALNISQRRKTPNPTASEFIPKGGSTSRLSNVSQSNMSAFSQVFSHPMSGSPATAGLAPGMSLSAG
SSPLHSPKITPHTSPAPRRRSHTPNPASVMVPSSASTSVNNPVSQTPSSGQVIQKETVGGTTYFYTDTP
APLTGMVFPNYHIYPPTAPHVAYMQPKANAPSFMADEL RQELINRH LITMAQIDQADMPAVPTEVDSYH
SLFPLEPLPPNRIQSSNF GYITSCYKAVNSKDDL PYCLRRIHGFR LVNTKCMVLVDMWKKIQHSNIVT
LREVF TTKAFAE PSLVFAYDFHAGGETMMSRHFNDPNADAYFTKRKWGQHEG PLRQHAGLLPE SLIWAY
IVQLSSALRTIHTAGLACRVMDPTKILITGKTRLRVNCGVFDVLTDFNSQNNNPLALMAQYQQADLISL
GKYVVALACNSLAGIQREN LQKAMELVTINYSSDLKNLILYLLTDQNRMSVNDIMP MIGARFYTLDA
QMRNDVIEEDLAKEVQNGRLFRLLAKLGTINERPEFQKDP T WSETGDRYLLK LFRDHLFHQVTEAGAPWI
DLSHIISCLNKLDAGVPEKISLISRDEKSVLVV TYSDLKRCFENTFQELIAAANGQL
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_175854

**ORF Size:** 2061 bp

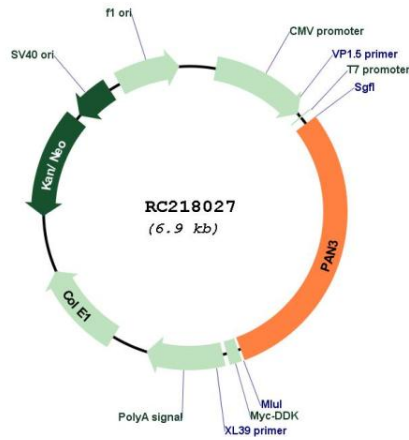
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

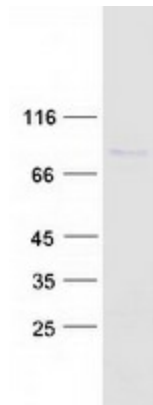
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>	<a href="#">NM_175854.5</a> , <a href="#">NP_787050.4</a>
<b>RefSeq Size:</b>	5643 bp
<b>RefSeq ORF:</b>	2664 bp
<b>Locus ID:</b>	255967
<b>UniProt ID:</b>	<a href="#">Q58A45</a>
<b>Cytogenetics:</b>	13q12.2
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	76 kDa
<b>Gene Summary:</b>	<p>Regulatory subunit of the poly(A)-nuclease (PAN) deadenylation complex, one of two cytoplasmic mRNA deadenylases involved in general and miRNA-mediated mRNA turnover. PAN specifically shortens poly(A) tails of RNA and the activity is stimulated by poly(A)-binding protein (PABP). PAN deadenylation is followed by rapid degradation of the shortened mRNA tails by the CCR4-NOT complex. Deadenylated mRNAs are then degraded by two alternative mechanisms, namely exosome-mediated 3'-5' exonucleolytic degradation, or deadenylation-dependent mRNA decapping and subsequent 5'-3' exonucleolytic degradation by XRN1. PAN3 acts as a positive regulator for PAN activity, recruiting the catalytic subunit PAN2 to mRNA via its interaction with RNA and PABP, and to miRNA targets via its interaction with GW182 family proteins.[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RC218027



Coomassie blue staining of purified PAN3 protein (Cat# [TP318027]). The protein was produced from HEK293T cells transfected with PAN3 cDNA clone (Cat# RC218027) using MegaTran 2.0 (Cat# [TT210002]).