

Product datasheet for **SC314436**

PAN3 (NM_175854) Human Untagged Clone

Product data:

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



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Fully Sequenced ORF: >SC314436 representing NM_175854.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**
 ATGAACAGTGGCGGGCGCTCCCGCCCCCTCGGCCGCCCTCCCTTCTCTCTCGCTGGCGGGC
 GCGGTGGCGGTGGTGGCCCCCGGGGGTGGGGGTGTCCCGGGCGGGCGCGGTAGGAGTGAAGCTG
 AAGTACTGCCGCTACTACGCTAAGGATAAGACTTGCTTCTACGGGGAGGAGTGTAGTTCCTGCATGAG
 GACCTGCCGCCGGGGTGGCCCCGGCCTCGGCCTCCATAGCAACAGCGTCCCCCTGGCTCTGGCTGGT
 GCACCCGTGGCGGGCTTTCGCCGGGAGCGTCGCGGGCGGGGAGCTGGGCCGCCCCCGGGCCCAAG
 AAGCCGGACCTGGGGACCCGGGACCGGAGCCGAGCCGGCGGAGGAGGAGTACGGGGGACTCGAT
 GGACCGCGGTGGCAATTCAGGAATGGATGGAGGTGCTTAACTGATACAAGTCTCACAGATTCCTAT
 TTTAGCACCGCTTTATTGGAGTCAATGGATTTGGAAGCCCTGTAGAAACAAAATATCCCTGATGCAG
 AGAATGACTAATAGTAGCAGTCCCCAAGCCTTCTAAATGACAGTGCCAAGCCATATTACGCCATGAT
 CCTCTAACATCACCTGCTTCATCTTGTAAATGACTTTGGTGGCCTCAACATCTCTCAGAGACGAAAG
 CCAAGGAAGTATCGCCTGGGGATGCTGGAGGAGAGGCTAGTTCGATGGGATCAAAGGCACGAAAAGCA
 AAGAACCCTATTGGCTGCCTTGCTGACAGGTGTAATCAGGAGTACCCATCAATATGGTTTGGTGGAAAC
 AGAGTACAGAAAACAATTTACAGACACCAATCCTACTGCAAGCGAGTTTATTCCTAAAGGAGGATCA
 ACCTCCAGGCTGAGTAACGTGTCCAGTCAAATATGTCTGCCTTCTCAAGTTTCTCTACCCATCC
 ATGGGAAGCCCTGCTACTGCTGGATTAGCGCCAGGAATGTCGTTGCTGCTGGGTCTTCCCTCTTCAT
 TCCCCAAGATTACTCCACATACTTCTCTGCTCCAGAAGAAGAAGTCACTCCAAATCCAGCAAGT
 TACATGGTGCCTTCTAGTGCCTTACATCTGTTAATAATCCTGTTTCTCAGACTCCGTCTTCTGGTCAG
 GTGATCCAAAAGGAACTGTTGGTGGGACGACTTACTTCTATACAGACACAACCTCCAGCACCTTTGACT
 GGAATGGTGTTCCAAACATACATATTTATCCTCAACTGCACCTCACGTTGCTTATATGCAACCGAAA
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 ATGGCTCAAATTGATCAAGCAGATATGCCAGCAGTTTCTACAGAGGTTGACAGTACCATAGCCTATTC
 CCTCTAGAACCTGCCACCTCCCAACCGGATACAGAAATCAAGTAATTTTGGATATATTACATCTTGC
 TACAAAGCTGTAAACAGCAAAGATGATCTGCCATATTGCCTTCGGAGGATACATGGTTTTCTGTTGTT
 AACACAAAGTGATGGTGTGGTGGTGCATGTGGAAGAAAATTCAACTCAAAATATCGTAACCTTTCGT
 GAAGTATTTACCACTAAAGCATTGCTGAGCCCTCTTGTGTTTGCATATGATTTCCATGCTGGAGGA
 GAACTATGATGAGCAGACATTTAATGACCCTAATGCTGATGCCTACTTACCAAGAGAAAGTGGGGT
 CAGCACGAGGGACCATTTGCCAGGCAGCATGCTGGATTATTGCCAGAATCTTTATTTGGGCATATATT
 GTCCAATAAGTTCTGCATTGCGTACCATTATACAGCAGGTTTGGCATGTGAGTTATGGATCCAAACA
 AAGATTCTGATAACTGGCAAAACAAGGTTGCGAGTAAATTGTGTTGGAGTTTTTATGATGTTTTAATTTT
 GATAACAGTCAAAATAATAATCCATTGGCATTAAATGGCCAGTACCAGCAAGCAGATCTGATATCATTA
 GGAAAAGTTGTGTTGGCTTTGGCTTGCAACTCTTTGGCAGGAATTCAGCGAGAGAATTTACAGAAAGCC
 ATGGAAGTGGTGACAATCAACTATTCCTCTGACCTGAAGAATCTGATTTTGTATTTGTTGACTGACCAA
 AACAGGATGCGAAGTGAAATGACATCATGCCCATGATTGGTGTGCGATTTTATACTCAATTGGATGCT
 GCTCAAATGAGAAATGATGTCATAGAGGAAGACCTTGCAAGGAGGTTCAAATGGAAGACTGTTTAGG
 CTCCTAGCAAAATTGGGAACAATCAATGAGAGGCCGGAGTTTCAGAAGGATCCCACTTGGTCAGAGACT
 GGAGACCGTTATCTGTTGAAACTCTTTAGGGATCATCTTTTTATCAGGTGACAGAGCAGGTGCTCCC
 TGGATTGACCTCAGTCATATAATTTCTGTCTTAACAAGCTAGATGCTGGTGTGCCAGAAAAATAAGC
 CTGATTTCCAGAGATGAGAAGAGTGTACTTGTGGTGACCTACAGTGACTTAAAGCGCTGCTTTGAAAT
 ACTTTTCAAGAACTGATTGCAGCTGCAATGGTCAGTT**GTAG**
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI
ACCN: NM_175854
Insert Size: 2664 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<u>NM_175854.7</u>
RefSeq Size:	5643 bp
RefSeq ORF:	2664 bp
Locus ID:	255967
UniProt ID:	<u>Q58A45</u>
Cytogenetics:	13q12.2
Protein Families:	Druggable Genome
MW:	95.6 kDa
Gene Summary:	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]