

Product datasheet for **MG208872**

Pan3 (BC082547) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pan3 (BC082547) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pan3
Synonyms:	2700050F09Rik; A430027N15Rik; AU014670
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>MG208872 representing BC082547
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGGGAATGTCACTGTCTGCTGGATCTTCCCCTCTCCATTCCCCAAAATTACTCCACACACCTCTC
 CTGCTCCTAGAGAAGAAAGCCCACTCCAAACCCAGCAAGTTTCATGGTGCCGCCTAGTGCCTCCACTCC
 TGCCAATAACCCCTGCTCCTCAGCCTCCGTCCTCTGGTCAGGTGATCCAGAAGGAGACTGTCGGGGGACG
 ACTTACTTCTATACAGATACAACCCAGCACCTTTGACTGGAATGGTATTTCAAACATCATATTTATC
 CTCCAACCGCACCTCATGTTGCTTATATGCAACCAAAAGCAATGCACCTTCTTCTCATGGCCGACGA
 GCTCCGACAGGAGCTGATCAACAGACATTTAATAACGATGGCTCAAATTGACCAAGCAGATATGCCAGCA
 GTCCCCACAGAAGTTGACAGCTACCATAGCCTGTTCCCTCTAGAACCCTGCCACCTCCCAACCGGATAC
 AGAAATCAAGTAATTTTGGATATATCACGTCTTGCTACAAAGCTGTAATAGCAAAGATGATCTGCCATA
 TTGCCTTCGGAGGATACATGGTTTTCTGCTTGTAAACACAAAGTCATGGTGTGGTTGATATGTGGAAA
 AAAATTACGACTCAAATATTGTAACCTGCGTGAAGTGTACCCTAAAGCATTGCGCGAGCCTTCTC
 TGGTGTTTCGCCTATGATTTCCATGCTGGAGGAGAACTATGATGAGCAGACACTTAAACGACCCGAATTC
 TGATGCCTACTTCACAAAGAGGAAGTGGGGCCAGCACGATGGACCACTGCCAGGAGCAGATGCTGGATTG
 TTACCAGAGTCTCTCATCTGGGCATACATTGTACAGCTGAGTTCTGCTCTGCGGACCATTCATACAGCAG
 GTTTGGCCTGTAGAGTAATGGACCAACGAAGATTCTGATAACCAGCAAAACAAGTTACGAGTAAATG
 TGTAGGAGTCTTTGATGTTTTAACATTTGATAACAGTCAAAATAATCCTTTGGCATTAAATGGCTCAG
 TACCAGCAAGCAGATCTGATATCATTAGGAAAAGTTGTGTGGCTTTGGCTTGCAACTCTTTGGCAGGAA
 TTCAGCGAGAAAATTTACAGAAAGCCATGGAATTGGTGACAATCAACTACTCTCTGACCTGAAGAACCT
 CATCTTGTACTTGTGACTGACCAAAACAGGATGCGGAGTGTGAATGACATCATGCCATGATTGGTGCT
 CGGTTTTACTCAATTGGATGCTGCTCAAATGAGAAATGATGTTATCGAGGAAGACCTTCTAAGGAGG
 TTCAAATGGAAGACTGTTAGGCTTCTAGCAAAATGGGAACAATCAACGAGAGGCCGGAGTTTCAGAA
 GGATCCAACCTGGTCAGAGACTGGAGACAGATACCTGTTGAACTCTTTAGAGATCATCTTTTCATCAG
 GTGACAGAAGCAGGTGCTCCCTGGATCGACCTCAGTCACATCATTTCTTGTCTTAACAAGCTAGATGCTG
 GTGTGCCAGAAAAATCAGCCTGATTTCCAGAGACGAGAAGAGCGTGCTGGTGGTACATACAGTGACCT
 AAAACGCTGCTTTGAAAATACCTTTCAAGAACTGATTGCGGCTGCAAATGGTAACGATCGGAACAGTAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208872 representing BC082547
 Red=Cloning site Green=Tags(s)

MRGMSLSAGSSPLHSPKITPHTSPAPRRRSHTPNPASFMVPPSASTPANNPAPQPPSSGQVIQKETVGGT
 TYFYTDTPAPLTGMVFPNYHIYPPTAPHVAYMQPKANAPSFMADELRLQELINRHLITMAQIDQADMPA
 VPTEVDSYHSLFPLEPLPPNRIQKSSNFGYITSCYKAVNSKDDLPHYCLRRIHGFRLLVNTKCMVLVDMWK
 KIQHSNIIVTLREVFTTKAFAEPSLVFAYDFHAGGETMMSRHFNDPNSDAYFTKRKWQHDGPLPRQHAGL
 LPESLIWAYIVQLSSALRTIHTAGLACRVMDPTKILITSKTRLRVNCGVDFDLTFDNSQNNPLALMAQ
 YQQADLISLGKVVLAACNSLAGIQRENQKAMELVITYSSDLKNLILYLLTDQNRMSVNDIMPIMIGA
 RFYTLQDAAQMRNDVIEEDLAKEVQNGRLFRLLAKLGTINERPEFQKDPWSETGDRYLLKLFDRHLFHQ
 VTEAGAPWIDLSHIISCLNKLDAGVPEKISLISRDEKSVLVVTVSDLKRCFENTFQELIAAANGNDRNSN

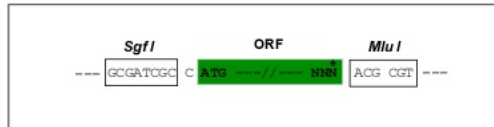
TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGGCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT
 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAACCTAGCTAGCGGACG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC - - - -
 T R T R P L E M E S D - - - -
 PmeI FseI
 - - - GAA GAA AGA GTT TAA ACGGCCGCCCGGAGCT
 - - E E R V Stop

ACCN: BC082547

ORF Size: 1680 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).

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [BC082547](#), [AAH82547](#)
RefSeq Size: 4194 bp

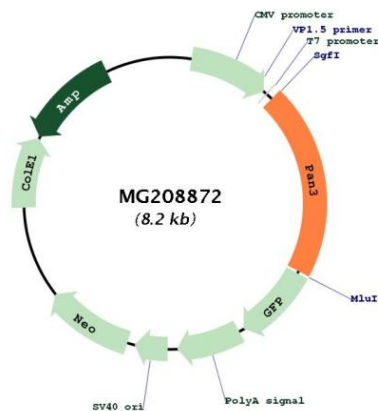
RefSeq ORF: 1682 bp

Locus ID: 72587

Cytogenetics: 5 G3

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]

Product images:



Circular map for MG208872