

Product datasheet for MC229459

Pan2 (NM_001252326) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pan2 (NM_001252326) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pan2
Synonyms:	1200014O24Rik; AI047843; AW742773; mKIAA0710; Usp52
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC229459 representing NM_001252326 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACCTTTGAGGGTCTGGATCCTGGACTGGCCGAATTTCCCCAGCTATGCATTCTACCCTGGACCCAG
TCCTGGATGCCACCTGAATCCAAGTTTGTACAGAATGTGGAGCTAGACCCAGAGGGAGTGGCCTTGG
GGCTCTTCTGTCCAGGAGTCAGTGCACATAATGGAAGGTGTCTACTCTGAGTTGCACAGCGTGGTGGCT
GAAGTGGGAGTGCCTGTGTCTGTCTCCACTTTGATTTACATGAGGAGATGCTGTGGTGGGAGCCATG
GGGCCATGCCACCTCCTTCTTCGGCCAGCTCTGGAGCGCTACTCATCCTTTCAGTCAATGGTGGTGA
CGACATTCGGCAAATCCAGAGCCTGGAGAACGGTATCCTCTTCCTCACCAGAACAACCTCAAGTACATG
GCCCGTGGAGGGCTCATTATATTTGACTATTTGCTGGATGAAAACGAGGATATGCACAGCGTCTCCTGA
CAGACAACAGCACTCTGCTCGTTGGGGGGCTGCAGAACCACGTAAGTGGAGATTGACCTGAACACTGTCCA
GGAGACTCAGAAGTATGCAGTCGAGACACCCGGAGTCACCATCATGAGACAGACAATCGTTTCTTCTTC
TGTGGCCACACATCTGGCAAGTTTCCCTGCGAGACCTCCGTAGTTTTAAAGTGGAGCATGAATTTGATG
CCTTCTCAGGGAGTCTGTGAGTTTTGATGTTTCATGGCAACCTGCTGGCTGCCTGCGGCTTCTCCAGTGC
CCTTACCGGCTGGCCTGTGACCGTTTCTCAAAGTGTACGATCTGCGCATGATGCGTCCATCACACCT
CTTCAAGTGCACGTGGATCCGGCCTTCTTACGATTCATCCCAACACTTCCCGCCTTGCTATCATCT
CCAGTCAAGTCAATGCCAGTTTTGTGAACCCACAGGCCTGGCCAACCCAGCCGACATTTCCATGTGAA
TCCCGTGGACCTTTGCTAATGACGTTTGTGTCAGCCAGCAAGCAGGCCCTGGCCTTTGGGATTCT
GAGGGTGCCTGCATCTCTGGACTGATTCCTGAGCCGCTCTTCAACCCCTACTCCCGAGAGACTGAGT
TTGCCCTGCCCTGTCTTGTGGACTCCTTGGCCCTCTGGACTGGAGCCAGGATCTGCTGCCGCTTCCCT
CATTCCCGTCCCCTTACCCTGATGCACTGCTCTGACTGGCCTGCTGCCAATCTGCTCCCGCTCCC
AGGCGAGCACCTGTGGATGCAGAAATCTTCAACCATGAAGAAAGTGGGCTTCAATGGCTATGCTC
CCAACCTCGCACCAGGCTGCGCAACCAGATTCCTATCGACTAAAGGAGTCAGACCATGAATTTGACAA
CTTCAGCCAAGTCACGGAGTCACCGACAGGGCGAGAAGAGGAGCCTCTCCACACAGTTTCTAAGAAATAC



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CGGAAGGTAACCATCAAATATTCCAAGCTAGGCCTGGAAGACTTTGACTTCAAACACTACAATAAGACTC
 TGTTTGTCTGGGTTAGAGCCTCACATCCCAATGCCTACTGTAAGTGCATGATCCAGGTGCTCTATTTCTT
 GGAGCCTGTTTCGCTGTCTGATCCAGAACCACCTTTGCCAAAAGGAGTTCTGCCTAGCGTGCAGCTCGGC
 TTCCTCTTCCACATGCTAGACCTCTCTCGTGGCGATCCTTGTGAGGCGAGTAATTTCTCCGAGCTTTCC
 GGACCATCCCTGAGGCCTCAGCTCTGGGTCTCATCCTTGTGACTCAGATGAGGCTTCAGGCAAGGGCAG
 TCTGGCCCGGCTCATCCAGAGGTGGAACCGCTTCATCCTCACTCAGCTACATCAGGATATGCAGGAGCTG
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 TGTTTCAGTTGTGAGATGGAGAAGTGCAGTCTTTGCCGCTGCGGCAGCGAGACTGTGCGGGCCTCGTCCAC
 CCTACTCTTCACTCTCCTACCCTGAGGATAAAAACCGGGAAGAACTATGACTTTGCTCAGGTGCTGAAG
 CGAAGTATCTGCCTGGAGCAGAACACACAGGCCTGGTGTGACAACTGTGAGAAGTACCAGCCACAATTC
 AGACCAGAAACATCCGACATCTGCCAGATATTCTTGTCACTAACTGTGAAGTGAATAGCTCAAAGAGGC
 TGATTTCTGGAGACTGCAAGCTGAGGTTGCCTTCAAATAGCGGTGAAAAAGTACGGCGGGGAAATGAAG
 AGCAAAGAGTTTGTCTTAGCTGATCGGAAGGAACTGAGGAGTCCAGAGGGCTTTCTGTGTTCTCCATCG
 AGGAGCTGAAGAATGTCTGGCTTCCATTTCCATCCGCATGAAGTACCAAGAACAAGGACTGGATGT
 TTGCAACTGGGCTGACGAGCATGAGTGGGTCCGCCAGGGCAGAGGAGGAGCTTGGTGTCTATGTATAT
 GACCTGATGGCTACTGTGTACACATCCTGGACTCACGAACAGGGCGCAGCTTGGTGGCTCACATCAAAG
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 TATTGAACCTATTGATAAGTATGAAGCCGTGCAGTTTGCATGAATTGAAAAGTACCTGCTATCCTGTAT
 TATGTCAAAGGAATCTCAATCCAGATACAATCTGAATATCAAGAACCCATTGAGGCCAGTGTGCTGC
 TGGCAGAAGCCTCGTGGCACGGAAGCAACGAAAACACACAGCCTTTATTCCATTGATGCTGAATGA
 GATGCCACAGGTGGGGACCTGGTGGCCTGGATGCCGAGTTTGTCACTTAAATGAGGAAGAAGCAGAG
 TTACGCACTGATGGTACCAAGTCCACCATTAAGCCAAGCCAGATGTCAGTAGCAAGGATCACCTGTGTTT
 GGGGCAAGGGCCTAACGAGGGCATCCCCTTTCATTGATGACTACATCTCCACGAGGAGCAGGTAGTAGA
 TTACTTGACTCAGTACTCGGGGATAAAGCCAGGAGACCTTGATGCCAAAATCTCCTCAAAGCACCTCACA
 ACCCTCAAGTCTACCTACTTAAAGCTTCGCTTTCTCATTGATATTGGAGTCAAGTTTGTGGGTCATGGTC
 TGCAGAAGGACTTCCGGGTCAACAACCTCATGGTGCCCAAGGACCAAGTCTTGACACAGTCTACCTGTT
 CCACATGCCCCGAAAACGAATGATTTCCCTACGATTCCTGGCCTGGTATTTTCTAGACCTGAAGATTCAA
 GGTGAGACCCATGACAGCATTGAGGATGCCCGCACAGCCCTTCAACTCTACCGGAAGTATCTGGAGCTGA
 GCAAGAACGGCACCGAGCCCGAGTCTTCCACAAGGTGCTCAAGGGTCTCTATGAGAAGGGCCGAAAGAT
 GGACTGGAAGGTGCTGAGCCTGAAAGCCAGACAAGTCCCAAGAATGCAGCTGTCTTCTCAGTGTGGCA
 CTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001252326
- Insert Size:** 3576 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:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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: [NM_001252326.1](#), [NP_001239255.1](#)

RefSeq Size: 4423 bp

RefSeq ORF: 3576 bp

Locus ID: 103135

UniProt ID: [Q8BGF7](#)

Cytogenetics: 10 D3

Gene Summary: Catalytic 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 (PubMed:16284618). Also acts as an important regulator of the HIF1A-mediated hypoxic response. Required for HIF1A mRNA stability independent of poly(A) tail length regulation (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses a different splice site in the coding region, compared to variant 1. The resulting protein (isoform 2) is shorter when it is compared to isoform 1.

Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.