

Product datasheet for **MC229442**

Pan2 (NM_001252327) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pan2 (NM_001252327) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pan2
Synonyms:	1200014O24Rik; AI047843; AW742773; mKIAA0710; Usp52
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229442 representing NM_001252327 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGAACTTTGAGGGTCTGGATCCTGGACTGGCCGAATTTCCCGAGCTATGCATTCTACCTGGACCCAG
TCCTGGATGCCACCTGAATCCAAGTTTGCTACAGAATGTGGAGCTAGACCCAGAGGGAGTGGCCTTGGA
GGCTCTTCTGTCCAGGAGTCACTGCACATAATGGAAGGTGTCTACTCTGAGTTGCACAGCGTGGTGGCT
GAAGTGGGAGTGCCTGTGTCTGTCTCCACTTTGATTTACATGAGGAGATGCTGTGGGTGGGAGCCATG
GGGTCAATGGTGGTGACGACATTCGGCAAATCCAGAGCCTGGAGAACGGTATCCTCTTCTCACCAGAA
CAACCTCAAGTACATGGCCCGTGGAGGGCTCATTATATTTGACTATTTGCTGGATGAAAACGAGGATATG
CACAGCGTCTCTGACAGACAACAGCACTCTGCTCGTTGGGGGGCTGCAGAACCACGACTGAGATTG
ACCTGAACACTGTCCAGGAGACTCAGAAGTATGCAGTCGAGACACCCGGAGTCACCATCATGAGACAGAC
AAATCGTTTCTTCTGTGGCCACACATCTGGCAAGGTTTCCCTGCGAGACCTCCGTAGTTTTAAAGTG
GAGCATGAATTTGATGCCTTCTCAGGGAGTCTGTCAGATTTTGATGTTTCATGGCAACCTGCTGGCTGCCT
GCGGCTTCTCCAGTCGCCTTACCGGCCTGGCCTGTGACCGTTTCCCTCAAAGTGTACGATCTGCGCATGAT
GCGTGCCATCACACCTCTTCAAGTGCACGTGGATCCGGCCTTCTACGATTCATCCCAACATACACTTCC
CGCCTTGCTATCATCTCCAGTCAGGTCAATGCCAGTTTTGTGAACCCACAGGCCTGGCCAAACCCAGCCG
ACATTTTCCATGTGAATCCCGTGGGACCTTTGCTAATGACGTTTGATGTGTGAGCCAGCAAGCAGGCCCT
GGCCTTTGGGATTCTGAGGGCTGCGTGCATCTCTGGACTGATTTCCCTGAGCCGCTCTTCAACCCCTAC
TCCCGAGAGACTGAGTTTGCCCTGCCCTGTCTTGAGACTCCTTGCCGCTCTGGACTGGAGCCAGGATC
TGCTGCCGCTTTCCCTCATTTCCCGTCCCACTTACCACTGATGCACTGCTCTGACTGGCCTGCTGCCAA
CTCTGCTCCCGCTCCAGGCGAGCACCCTGTGGATGCAGAAATTTCTGAACCATGAAGAAAGTGGGC
TTCATTGGCTATGCTCCCAACCTCGCACCAGGCTGCGCAACCAGATTCCCTATCGACTAAAGAGTGCAG
ACCATGAATTTGACAACCTCAGCAAGTCACGGAGTCACCGACAGGGCGAGAAGAGGAGCCTCTCCACAC
AGTTTCTAAGAAATACCGGAAGGTAACCATCAAATATTCCAAGCTAGGCCTGGAAGACTTTGACTTCAAA
CACTACAATAAGACTCTGTTTGCTGGGTAGAGCCTCACATCCCCAATGCCTACTGTAAGTGCATGATCC



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AGGTGCTCTATTTCTTGGAGCCTGTTTCGCTGTCTGATCCAGAACCACCTTTGCCAAAAGGAGTTCTGCCT
 AGCGTGCGAGCTCGGCTTCTCTTCCACATGCTAGACCTCTCTCGTGGCGATCCTTGTGAGGGCAGTAAT
 TTCCTCCGAGCTTTCCGGACCATCCCTGAGGCCTCAGCTCTGGGTCTCATCTTGTCTGACTCAGATGAGG
 CTTGAGGCAAGGGCAGTCTGGCCCGGCTCATCCAGAGGTGGAACCGCTTCATCCTCACTCAGCTACATCA
 GGATATGCAGGAGCTGGAAGTGCCCGAGGCTTATCGAGGTGCTGGAGGCAGTTTCTGCTCATCAGGAGAC
 TCCATCATTGGGCAGCTGTTCACTTGTGAGATGGAGAACTGCAGTCTTTCGCGCTGCGGCAGCGAGACTG
 TGCGGGCTCGTCCACCCTACTCTTCACTCTCTACCTGAGGATAAAACCGGGAAGAACTATGACTT
 TGCTCAGGTGCTGAAGCGAAGTATCTGCCTGGAGCAGAACACACAGGCCTGGTGTGACAACCTGTGAGAAG
 TACCAGCCCAACAATTGAGACAGAAACATCCGACATCTGCCAGATATTCTTGTCAATTAAGTGTGAAGTGA
 ATAGCTCAAAAGAGGCTGATTTCTGGAGACTGCAAGCTGAGGTTGCCTTCAAAATAGCGGTGAAAAAGTA
 CGGCGGGGAAATGAAGAGCAAAGAGTTTCTTTAGCTGATCGGAAGGAACTGAGGAGTCCAGAGGCTTT
 CTGTGTTCTCCATCGAGGAGCTGAAGAATGTCTGGCTTCCATTTTCCATCCGCATGAAGATGACCAAGA
 ACAAAGGACTGGATGTTTGAAGTGGGCTGACGAGCATGAGTGGGTCCGCGCAGGCAGAGGAGGAGCT
 TGGTGTCTATGTATATGACCTGATGGCTACTGTGTACACATCTGGACTCACGAACAGGCGGCAGCTTG
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 TCTTCAATGACTTCCTTATTGAACCTATTGATAAGTATGAAGCCGTGCAGTTTGACATGAATTGGAAGT
 ACCTGCTATCCTGTATTATGTCAAAAGGAATCTCAATTCCAGATACAATCTGAATATCAAGAACCCATT
 GAGGCCAGTGTGCTGCTGGCAGAAAGCCTCGCTGGCAGGAAAGCAACGGAACACACACGACCTTTATTC
 CATTGATGCTGAATGAGATGCCACAGGTCGGGACCTGGTGGGCTGGATGCCGAGTTTGTCACTCTTAA
 TGAGGAAGAAGCAGAGTTACGAGTGTGGTACCAAGTCCACCATTAAAGCAAGCCAGATGTCAGTAGCA
 AGGATCACCTGTGTTCCGGGCAAGGGCCTAACGAGGGCATCCCTTTCATTGATGACTACATCTCCACGC
 AGGAGCAGGTAGTAGATTACTTGACTCAGTACTCGGGGATAAAGCCAGGAGACCTTGATGCCAAAATCTC
 CTCAAAGCACCTCACAACCCTCAAGTCTACCTACTTAAAGCTTCGCTTTCTCATTGATATTGGAGTCAAG
 TTTGTGGGTGATGGTCTGCAGAAAGGACTTCCGGGTGATCAACCTCATGGTGCCCAAGGACCAAGTTCTTG
 ACACAGTCTACCTGTTCCACATGCCCCGAAAACGAATGATTTCCCTACGATTCTGGCCTGGTATTTCT
 AGACCTGAAGATTCAAGGTGAGACCCATGACAGCATTGAGGATGCCCGCAGGCCCTTCAACTCTACCGG
 AAGTATCTGGAGCTGAGCAAGAAGCGGACCGAGCCGAGTCTTCCACAAGGTGCTCAAGGGTCTCTATG
 AGAAGGGCCGAAAGATGGACTGGAAGGTGCCTGAGCCTGAAAGCCAGACAAGTCCCAAGAATGCAGCTGT
 CTTCTCAGTGTGGCACTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001252327
Insert Size:	3522 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_001252327.1, NP_001239256.1

RefSeq Size: 4369 bp

RefSeq ORF: 3522 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 (3) uses two different splice sites in the coding region, compared to variant 1. The resulting protein (isoform 3) 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.