OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RN206390

Pan2 (NM_001008862) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pan2 (NM_001008862) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Pan2
Synonyms:	Usp52
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>RN206390 representing NM_001008862 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGAACTTTGAGGGTCTGGATCCTGGACTGGCCGAATTCTCCCCAGCTATGCATTCTACCCTGGACCCAG TCCTGGATGCCCACCTGAATCCAAGTTTGCTACAGAATGTGGAGCTGGACCCAGAGGGAGTGGCTTTGGA GGCCCTTCCTGTCCAGGAGTCAGTGCACATAATGGAAGGTGTCTACTCTGAGTTGCACAGCGTGGTGGCT GAAGTGGGAGTGCCTGTGTCTGTCTCCCACTTTGATTTGCAGGAGGAGATGCTGTGGGTGGGGAGCCACG GGGGCCATGCCACTTCCTTCTTCGGTCCCGCTCTGGAGCGCTACTCGTCCTTTCAGGTCAATGGCAGTGA TGACATTCGGCAAATCCAGAGCCTGGAGAACGGTATCCTTTTCCTCACCAAGAACAACCTCAAGTACATG GCCCGTGGGGGGCTCATCATCTTTGACTATTTGCTGGATGAGAGTGAGGACATGCACAGTCTCCTCCTGG CGGACAACAACACTCTGCTTGTTGGTGGGCTGCAGAACCACGTCCTGGAGATCGATCTAAACACTGTCCA GGAGACTCAGAAGTATGCAGTCGAGACACCCGGAGTCACCATCATGAGACAGACAAATCGCTTCTTCTTC TGTGGCCACACATCTGGCAAGGTTTCCCTGCGAGACCTCCGTAGTTTTAAAGTGGAACATGAATTTGATG CCTTCTCAGGGAGTCTGTCCGACTTTGATGTTCATGGCAACCTGCTGGCTGCCTGCGGCTTTTCCAGCCG CCTTACCGGCCTGGCCTGTGACCGTTTCCTCAAGGTGTATGACCTGCGCATGATGCGTGCCATCACCCCA CTTCAAGTGCACGTGGATCCAGCCTTCTTGCGTTTCATCCCCACTTACACATCCCGCCTTGCTATCATTT CCCAATCAGGTCAGTGCCAGTTTTGTGAACCCACAGGCCTGGCCAACCCAGCTGACATCTTCCATGTGAA TCCCGTGGGACCTCTGCTAATGACATTTGATGTGTCAGCCAGCAAGCAGGCCCTGGCCTTTGGGGATTCC GAGGGCTGTGTGCATCTCTGGACTGACTCCCCCGAGCCGTCCTTCAACCCCTACTCCCGAGAGACTGAAT TCGCTCTGCCCTGTCTTGTGGACTCATTGCCTGCGCTGGACTGGAGCCAGGATCTGCTGCCGCTTTCCCT CATTCCCGTCCCACTTACCACTGACGCGCTGCTCTCCGACTGGCCGGCTGCCAACTCTGCCCCTGCTCCC AGGCGAGCACCACCTGTGGATGCAGAAATCCTTCGAACCATGAAGAAAGTGGGCTTCATTGGCTACGCCC CCAACCCCCGCACCAGGCTGCGCAACCAGATTCCCTATCGACTAAAGGAGTCAGACCATGAATTTGACAA CTTCAGCCAAGTCACAGAGTCACCGACAGGGCGAGAAGAGGAGCCTCTCCACACAGTTTCTAAGAAATAC CGGAAGGTAACCATCAAATATTCCAAGCTGGGACTGGAAGACTTTGACTTCAAACACTACAATAAGACTC

View online »

TGTTTGCTGGGTTAGAGCCTCACATCCCCAATGCCTACTGTAACTGCATGATCCAGGTGCTCTATTTCTT
GGAGCCTGTTCGCTGTCTGATCCAGAACCACCTTTGCCAGAAGGAGTTCTGCCTGGCATGTGAGCTGGGC
TTTCTCTTCCACATGCTGGACCTCTCTCGTGGCGACCCTTGTCAGGGCAGTAATTTCCTCCGAGCTTTCC
GGACCATTCCTGAGGCCTCAGCACTGGGTCTCATCCTGGCTGACTCAGATGAGGCTTCAGGCAAGGGCAG
CCTGGCCAGGCTCATCCAGAGGTGGAACCGCTTCATCCTCACTCAGCTGCATCAGGATATGCAGGAGCTG
GAAGTACCCCAGGCTTATCGAGGTGCTGGGGGCAGTTTCTGCTCATCAGGGGATTCCATCATCGGGCAGC
TGTTCAGCTGTGAGATGGAGAACTGTAGCCTCTGCCGCTGTGGCAGTGAGACTGTGCGGGCCTCGTCCAC
CCTGCTCTTCACACTCTCCTACCCTGAGGATAAAACCGGCAAGAACTATGACTTTGCTCAGGTGCTGAAG
CGAAGTATTTGCCTGGAGCAGAACACACAGGCCTGGTGTGACAGCTGTGAGAAGTACCAGCCTACAATTC
AGACCCGCAACATCCGACATCTGCCAGATATTCTTGTCATTAATTGTGAAGTGAATAGCTCAAAAGAGGC
TGATTTCTGGAGACTGCAAGCTGAGGTTGCCTTCAAAATAGCAGTGAAGAAGTTCGGCGGGGAAGTAAAG
AGCAAGGAGTTTGCTTTAGCTGATAGGAAGGAACTGAGGAGTCCCGAGGGCTTTCTGTGTTGTTCCTCCA
TGGAAGAGCTGAAGAACGTCTGGCTTCCATTTTCCATCCGCATGAAGATGACCAAGAACAAAGGACTGGA
CGTGTGCAACTGGGCTGATGAGCATGAGCTTAGCAGCCTGGGTACCCCCTCACAGTGGGGTCCAGCCAGG
GCAGAGGAGGAGCATGGTGTCTATGTCTATGACCTGATGGCTACTGTGGTACACATCCTGGACTCACGAA
CAGGAGGCAGCTTGGTAGCTCACATCAAAGTCGGCGAGACCTACCACCAGCGCAAGGAGGGAGTGACTCA
CCAGCAGTGGTATCTCTTCAATGACTTCCTTATTGAACCTATTGATAAGTATGAAGCTGTGCAATTTGAT
ATGAACTGGAAAGTACCTGCTATCCTGTATTACGTCAAAAGGAATCTCAATTCCAGATACAACCTGAACA
GTAAGAACCCTATTGAGGCTAGCGTGCTGCTGGCAGAAGCCTCACTGGCACGGAAACAACGGAAAACACA
CACTACCTTTATCCCACTGATGCTGAATGAGATGCCACAGGTTGGGGACCTGGTAGGCCTTGATGCCGAG
TTTGTCACTCTTAATGAGGAAGAAGCAGAGTTACGAAGTGATGGCACCAAGTCCACCATTAAGCCAAGCC
AGATGTCAGTAGCAAGGATCACCTGTGTTCGGGGCCAAGGGCCTAACGAGGGTATCCCCTTCATTGATGA
CTACATCTCCACACAGGAGCAGGTAGTAGACTACTTGACTCAGTACTCGGGGATAAAGCCAGGAGACCTG
GATGCCAAAATTTCCTCAAAGCACCTCACAACTCTCAAGTCGACTTACTTAAAGCTTCGCTTTCTCATTG
ACATTGGAGTCAAGTTTGTGGGCCACGGTCTGCAGAAGGACTTCCGGGTCATCAACCTCATGGTACCCAA
GGACCAAGTTCTCGACACAGTCTACCTGTTCCACATGCCCCGAAAACGAATGATTTCCCTACGATTCCTT
GCTTGGTACTTTCTCGACCTGAAGATTCAAGGTGAGACCCATGACAGTATTGAGGATGCCCGCACAGCCC
TTCAGCTCTACCGAAAGTACCTGGAGCTAAGCAAGAACGGCGCTGAGCCCGAGTCCTTCCACAAGGTGCT
CAAGGGCCTCTATGAGAAGGGCCGGAAGATGGACTGGAAGGTGCCAGAGCCAGAAAGCCAGAGCAGCCCA
AAGAGTAAGGCCGGGCTGAGGCCAGGGGCACTGGGTTGGGTAGGTTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001008862

Insert Size: 3618 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).

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_001008862.1, NP_001008862.1
RefSeq Size:	3618 bp
RefSeq ORF:	3618 bp
Locus ID:	408200
UniProt ID:	Q6IE70
Cytogenetics:	7q11
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 deadenlyation-dependent mRNA decaping and subsequent 5'-3' exonucleolytic degradation by XRN1. Also acts as an important regulator of the HIF1A-mediated hypoxic response. Required for HIF1A mRNA stability independent of poly(A) tail length regulation.[UniProtKB/Swiss-Prot Function]