

Product datasheet for MR231670

Pan2 (NM_001252326) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pan2 (NM_001252326) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pan2
Synonyms:	1200014O24Rik; AI047843; AW742773; mKIAA0710; Usp52
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR231670 representing NM_001252326 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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GGCTCTTCTGTCCAGGAGTCAGTGCACATAATGGAAGGTGTCTACTCTGAGTTGCACAGCGTGGTGGCT
GAAGTGGGAGTGCCTGTGTCTGTCTCCACTTTGATTTACATGAGGAGATGCTGTGGGTGGGAGCCATG
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CGACATTCGGCAAATCCAGAGCCTGGAGAACGGTATCCTCTTCTCACCAAGAACAACCTCAAGTACATG
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CAGACAACAGCACTCTGCTCGTTGGGGGCTGCAGAACCAGTACTGGAGATTGACCTGAACACTGTCCA
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Protein Sequence: >MR231670 representing NM_001252326
 Red=Cloning site Green=Tags(s)

MNFEGLDPLAEFSPAMHSTLDPVLD AHLNPSLLQNVELDPEGVALEALPVQESVHIMEGVVSELHSVVA
 EVGVVPSVSHFDLHEEMLWVSGHGHATSFFGPALERYSSFQVNGGDDIRQIQSLENGILFLT KNNLKYM
 ARGGLIIFDYLLDENEDMHSVLLTDNSTLLVGG LQNHVLEIDLNTVQETQKYAVETPGVTIMRQTNRFFF
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 LQVHVDP AFLRFIPTYTSRLAIIISQSGQCQFCEPTGLANPADIFHVNPVGP LLMTFDVSASKQALAFGDS
 EGCVHLWTDSP EFSFPYSRETEFALPCLVDSL PPLDWSQDLLPLSLIPVPLTTDALLSDWPAANSAPAP
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 FLFHMLDL SRGDP CQGSNFLRAFRTIPEASALGLILADSDEASGKGLARLIQRWNRFILTQLHQDMQEL
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 RSIACLEQNTQAWCDNCEKYOPTIQTRNIRHLPDILVINCEVNSSKEADFWRLQAEVAFKIAVKKYGEMK
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 DLMATVVHILDSRTGGSLVAHIKVG ETYHQKKEGVTHQQWYLFNDFLIEPIDKYEAVQFDMNWKVPAILY
 YVYKRNLSRYNLSRNLNKNPIEASVLLAEASLARKQRKTHHTFIPLMLNEMPQVGD LVGLDAEFVTLN EEEAE
 LRS DGTSTIKPSQMSVARITCVRGQGPNEGIPFIDDYISTQE QVV DYL TQYSGIKPGDLDAKISSKHLT
 TLKSTYLKLRFLIDIGVKFVGHGLQKDFRVINLMVPKQVLDTVYLFHMPRKR M ISLRFLAWYFLDLKIQ
 GETHDSIEDARTALQLYRKYLELSKNGTEPESFHKVLKGLYEKGRKMDWKVPEPE SQTSPKNAAVSVLA
 L

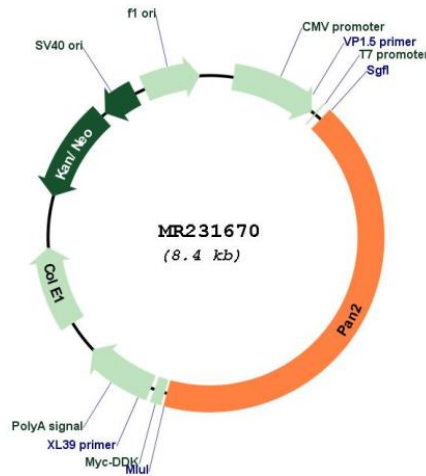
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001252326

ORF Size: 3573 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.

RefSeq: [NM_001252326.1](#), [NP_001239255.1](#)

RefSeq Size: 4423 bp

RefSeq ORF: 3576 bp

Locus ID: 103135

UniProt ID: [Q8BGF7](#)

Cytogenetics: 10 D3

MW: 134.9 kDa

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]