

Product datasheet for MR231653

Pan2 (NM_001252327) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pan2 (NM_001252327) 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: >MR231653 representing NM_001252327
 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >MR231653 representing NM_001252327
 Red=Cloning site Green=Tags(s)

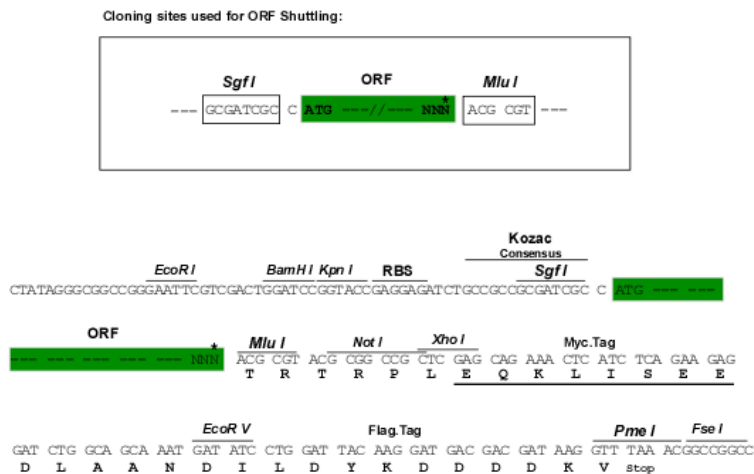
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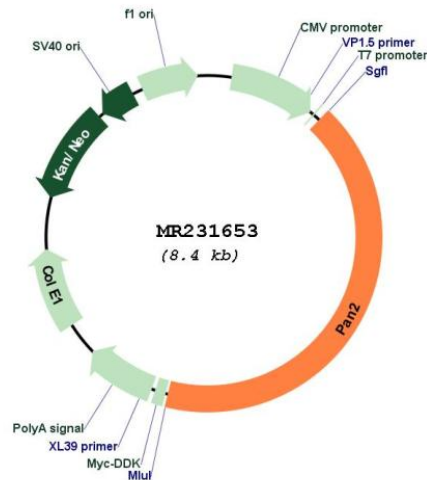
Restriction Sites:

SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001252327

ORF Size: 3519 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_001252327.1](#), [NP_001239256.1](#)

RefSeq Size: 4369 bp

RefSeq ORF: 3522 bp

Locus ID: 103135

UniProt ID: [Q8BGF7](#)

Cytogenetics: 10 D3

MW: 132.9 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]