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Product datasheet for MG203392

Pcna (NM_011045) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pcna (NM_011045) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pcna
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

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>MG203392 representing NM_011045
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTGAGGCACGCCTGATCCAGGGCTCCATCCTGAAGAAGGTGCTGGAGGCTCTCAAAGACCTCATCA
ATGAGGCCTGCTGGGACGTCAGCTCGGGCGGCGTGAACCTGCAGAGCATGGACTCGTCTCACGTCTCCTT
GGTACAGCTTACTCTGCGCTCCGAAGGCTTCGACACATACCGCTGCGACCGCAACCTAGCCATGGGCGTG
AACCTCACCAGCATGTCCAAAATTCTAAAATGTGCTGGTAATGAAGACATCATTACATTAAGGGCTGAAG
ATAATGCAGACACCTTAGCACTAGTATTCGAAGCACCAAATCAAGAGAAAGTTTCAGACTATGAAATGAA
GTTAATGGACTTAGATGTGGAGCAACTTGGAATCCCAGAACAGGAGTACAGCTGTGTAATAAAGATGCCG
TCGGGTGAATTTGCACGTATATGCCGAGACCTTAGCCACATTGGAGATGCTGTTGTGATATCCTGTGCAA
AGAATGGGGTGAAGTTTTCTGCAAGTGGAGAGCTTGGCAATGGGAACATTAAGTTGTCACAAACAAGTAA
TGTGGATAAAGAAGAGGAGGCGGTAACCATAGAGATGAATGAGCCTGTTCACCTAACGTTTGCTCTGAGG
TACCTGAACTTTTTCACAAAAGCCACTCCACTGTCTCCTACAGTAACACTCAGTATGTCTGCAGATGTGC
CCCTTGTTGTAGAGTATAAAATTGCTGACATGGGACACTTAAAGTATTATTTGGCTCCCAAGATTGAAGA
TGAGGAAGCATCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag -  GTTTAA
```

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Protein Sequence:

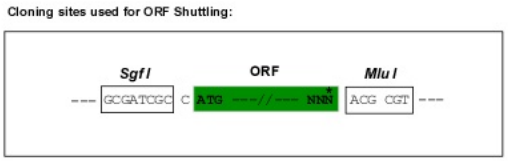
```
>MG203392 representing NM_011045
Red=Cloning site Green=Tags(s)

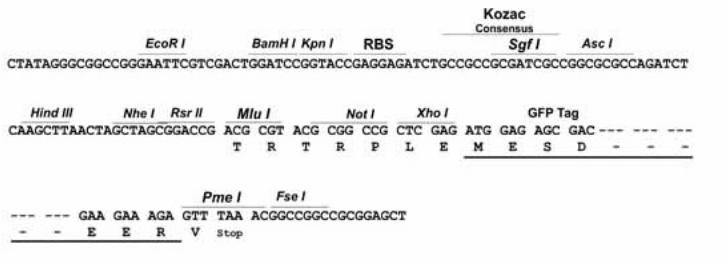
MFEARLIQGSILKKVLEALKDLINEACWDVSSGGVNLQSMDSSHVSLVQLTLRSEGFDTYRCDRNLAMGV
NLTSMSKILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKLMDLDVEQLGIPEQEYSCVIKMP
SGEFARICRDLSHIGDAVVISCAKNGVKFSASGELGNGNIKLSQTSNVDKEEEAVTIEMNEPVHLTFALR
YLNFFTKATPLSPTVTLSMSADVPLVVEYKIADMGHLKYYLAPKIEDEEAS

TRTRPLE - GFP Tag -  V
```

Restriction Sites: SgfI-MluI

Cloning Scheme:





ACCN: NM_011045

ORF Size: 783 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).

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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_011045.2, NP_035175.1

RefSeq Size: 1260 bp

RefSeq ORF: 786 bp

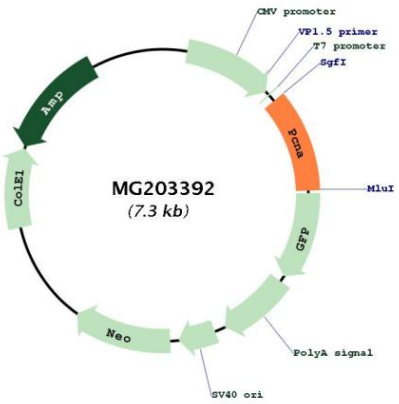
Locus ID: 18538

UniProt ID: P17918

Cytogenetics: 2 64.15 cM

Gene Summary: Auxiliary protein of DNA polymerase delta and is involved in the control of eukaryotic DNA replication by increasing the polymerase's processibility during elongation of the leading strand. Induces a robust stimulatory effect on the 3'-5' exonuclease and 3'-phosphodiesterase, but not apurinic-apyrimidinic (AP) endonuclease, APEX2 activities. Has to be loaded onto DNA in order to be able to stimulate APEX2. Plays a key role in DNA damage response (DDR) by being conveniently positioned at the replication fork to coordinate DNA replication with DNA repair and DNA damage tolerance pathways. Acts as a loading platform to recruit DDR proteins that allow completion of DNA replication after DNA damage and promote postreplication repair: Monoubiquitinated PCNA leads to recruitment of translesion (TLS) polymerases, while 'Lys-63'-linked polyubiquitination of PCNA is involved in error-free pathway and employs recombination mechanisms to synthesize across the lesion (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG203392

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