

Product datasheet for **MR226901**

Pttg1 (NM_013917) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pttg1 (NM_013917) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Pttg1
Synonyms: AW555095; C87862; Pttg; Pttg3
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR226901 representing NM_013917
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

**ATGGCTACTCTTATCTTTGTTGATAAGGATAATGAAGAACCCGGCCGCCGTTTGGCATCTAAGGATGGGT
TGAAGCTGGGCACTGGTGTCAAGGCCTTAGATGGGAAATTGCAGGTTTCAACGCCTCGAGTCGGCAAAGT
GTTCAATGCTCCAGCCGTGCCTAAAGCCAGCAGAAAGGCTTTGGGACAGTCAACAGAGTTGCCGAAAAG
CCTATGAAGACTGGCAAACCCCTCAACCAAAAACAGCCGACCTTGACTGGGAAAAAGATCACCGAGAAGT
CTACTAAGACACAAAGTTCTGTTCTGCTCCTGATGATGCCTACCCAGAAATAGAAAAGTTCTTCCCTTT
CAATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAGGAGCACCAGATCTCACTTCTCCCCTTGAATGGC
GTGCCCTCATGACCCTGAATGAAGAGAGAGGGCTGGAGAAGCTGCTGCATCTGGGCCCCCTAGCCCTC
TGAAGACACCCTTCTATCATGGGAATCTGGTAAGGGAGTCCGTTCAAACCTCGGGCTGTAAGCAACTTGT
CACA**

**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence: >MR226901 representing NM_013917
Red=Cloning site Green=Tags(s)

MATLIFVDKDNPEPGRRLASKDGLKLGTVKALDGKLVQSTPRVGKVFNAVPAVKASRKALGTVNRVAEK
PMKTGKPLQPKQPTLTGKKITEKSTKTQSSVPAPDDAYPEIEKFFPFNPLDFESFDLPEEHQISLLPLNG
VPLMTLNEERGLEKLLHLGPPSPLKTPFLSWESGKGVRSNSGCKQLVT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

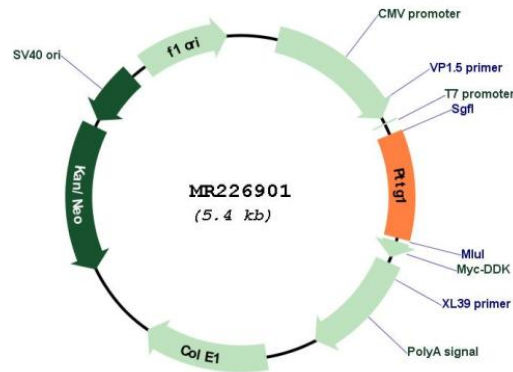
Restriction Sites: Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_013917

ORF Size: 564 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_013917.3](#)

RefSeq Size: 1698 bp

RefSeq ORF: 567 bp

Locus ID: 30939

UniProt ID: [Q9CQJ7](#)

Cytogenetics: 11 B1.1

MW: 20.9 kDa

Gene Summary: Regulatory protein, which plays a central role in chromosome stability, in the p53/TP53 pathway, and DNA repair. Probably acts by blocking the action of key proteins. During the mitosis, it blocks Separase/ESPL1 function, preventing the proteolysis of the cohesin complex and the subsequent segregation of the chromosomes. At the onset of anaphase, it is ubiquitinated, conducting to its destruction and to the liberation of ESPL1. Its function is however not limited to a blocking activity, since it is required to activate ESPL1. Negatively regulates the transcriptional activity and related apoptosis activity of p53/TP53. The negative regulation of p53/TP53 may explain the strong transforming capability of the protein when it is overexpressed. May also play a role in DNA repair via its interaction with Ku, possibly by connecting DNA damage-response pathways with sister chromatid separation (By similarity). [UniProtKB/Swiss-Prot Function]