

## Product datasheet for **MR226902**

### **Pttg1 (NM\_001131054) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Pttg1 (NM\_001131054) 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:** >MR226902 representing NM\_001131054  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGC**C

ATGGCTACTCTTATCTTTGTTGATAAGGATAATGAAGAACCCGGCCGCCGTTTGGCATCTAAGGATGGGT  
TGAAGCTGGGCACTGGTGTCAAGGCCTTAGATGGGAAATTGCAGGTTTCAACGCCTCGAGTCGGCAAAGT  
GTTCAATGCTCCAGCCGTGCCTAAAGCCAGCAGAAAGGCTTTGGGACAGTCAACAGAGTTGCCGAAAAG  
CCTATGAAGACTGGCAAACCCCTCAACCAAAAACAGCCGACCTTGACTGGAAAAAGATCACCGAGAAGT  
CTACTAAGACACAAAGTTCTGTTCTGCTCCTGATGATGCCTACCCAGAAATAGAAAAGTTCTTCCCTTT  
CAATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAGGAGCACCAGATCTCACTTCTCCCCTTGAATGGC  
GTGCCCTCATGACCCTGAATGAAGAGAGAGGGCTGGAGAAGCTGCTGCATCTGGGCCCCCTAGCCCTC  
TGAAGACACCCCTTCTATCATGGGAATCTGATCCGCTGTACTCTCCTCCCAGTGCCTCTCCACTCTGGA  
TGTTGAATTGCCGCTGTTTGTACGATGCAGATATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR226902 representing NM\_001131054  
**Red=Cloning site Green=Tags(s)**

MATLIFVDKDNPEEGRRLASKDGLKLGTVKALDGKLVQSTPRVGKVFNAVPAVKASRKALGTVNRVAEK  
PMKTGKPLQPKQPTLTGKKITEKSTKTQSSVPAPDDAYPEIEKFFPFNPLDFESFDLPEEHQISLLPLNG  
VPLMTLNEERGLEKLLHLGPPSPLKTPFLSWESDPLYSPPSALSTLDVELPPVCYDADI

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

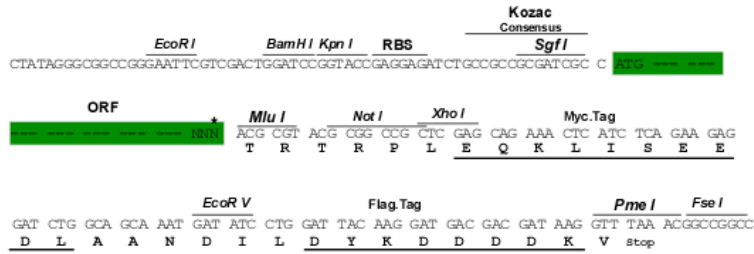
**Restriction Sites:** Sgfl-MluI



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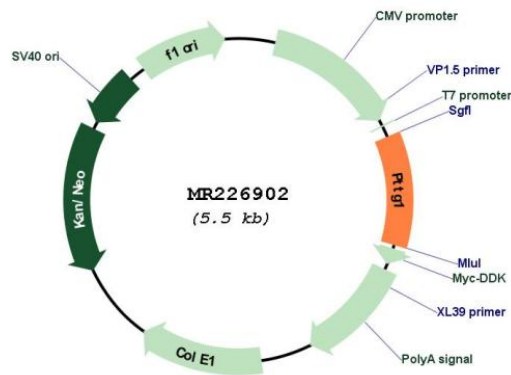
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM\_001131054

ORF Size: 597 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001131054.2](#)

**RefSeq Size:** 748 bp

**RefSeq ORF:** 600 bp

**Locus ID:** 30939

**UniProt ID:** [Q9CQJ7](#)

**Cytogenetics:** 11 B1.1

**MW:** 22.2 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]