

Product datasheet for **MG226901**

Pttg1 (NM_013917) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pttg1 (NM_013917) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Pttg1
Synonyms: AW555095; C87862; Pttg; Pttg3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG226901 representing NM_013917
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTACTCTTATCTTTGTTGATAAGGATAATGAAGAACCCGGCCGCCGTTTGGCATCTAAGGATGGGT
 TGAAGCTGGGCACTGGTGTCAAGGCCTTAGATGGGAAATTGCAGGTTTCAACGCCTCGAGTCGGCAAAGT
 GTTCAATGCTCCAGCCGTGCCTAAAGCCAGCAGAAAGGCTTTGGGACAGTCAACAGAGTTGCCGAAAAG
 CCTATGAAGACTGGCAAACCCCTCAACCAAAACAGCCGACCTTGACTGGGAAAAAGATCACCGAGAAGT
 CTACTAAGACACAAAGTTCTGTTCTGCTCCTGATGATGCCTACCCAGAAATAGAAAAGTTCTTCCCTTT
 CAATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAGGAGCACCAGATCTCACTTCTCCCCTTGAATGGC
 GTGCCTCTCATGACCCTGAATGAAGAGAGAGGGCTGGAGAAGCTGCTGCATCTGGGCCCCCTAGCCCTC
 TGAAGACACCCTTTCTATCATGGGAATCTGGTAAGGGAGTCCGTTCAAACCTCGGGCTGTAAGCAACTGT
 CACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG226901 representing NM_013917
 Red=Cloning site Green=Tags(s)

MATLIFVDKDNEEPGRRLASKDGLKLGTVKALDGKLVQVSTPRVGKVFNAPAVPKASRKALGTVNRVAEK
 PMKTGKPLQPKQPTLTGKKITEKSTKTQSSVPAPDDAYPEIEKFFPFNPLDFESFDLPEEHQISLLPLNG
 VPLMTLNEERGLEKLLHLGPPSPLKTPFLSWESGKGVRSNSGCKQLVT

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

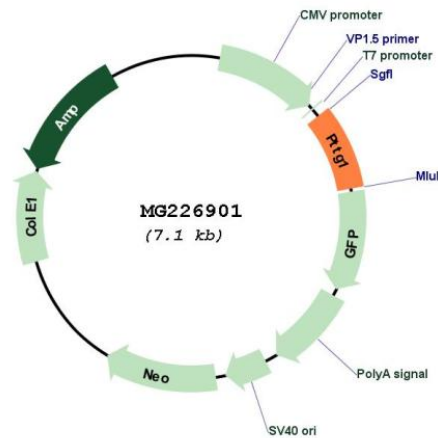


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Cloning Scheme:



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

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]