

## Product datasheet for MC209840

### Pttg1 (NM\_001131054) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Pttg1 (NM_001131054) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pttg1
Synonyms:	AW555095; C87862; Pttg; Pttg3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209840 representing NM_001131054 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTACTCTTATCTTTGTTGATAAGGATAATGAAGAACCCGGCCGCCGTTTGGCATCTAAGGATGGGT  
 TGAAGCTGGGCACTGGTGTCAAGGCCTTAGATGGGAAATTGCAGGTTTCAACGCCTCGAGTCGGCAAAGT  
 GTTCAATGCTCCAGCCGTGCCTAAAGCCAGCAGAAAGGCTTTGGGGACAGTCAACAGAGTTGCCGAAAAG  
 CCTATGAAGACTGGCAAACCCCTCAACCAAAACAGCCGACCTTGACTGGGAAAAAGATCACCGAGAAGT  
 CTACTAAGACACAAAGTTCTGTTCTGCTCCTGATGATGCCTACCCAGAAATAGAAAAGTTCTTCCCTTT  
 CAATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAGGAGCACCAGATCTCACTTCTCCCTTGAATGGC  
 GTGCCTCTCATGACCCTGAATGAAGAGAGAGGGCTGGAGAAGCTGCTGCATCTGGGCCCCCTAGCCCTC  
 TGAAGACACCCTTTCTATCATGGGAATCTGATCCGCTGTACTCTCCTCCAGTGCCCTCTCCACTCTGGA  
 TGTGAATTGCCGCTGTTTGTACGATGCAGATATT**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-MluI
ACCN:	NM_001131054
Insert Size:	600 bp


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<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001131054.1</a> , <a href="#">NP_001124526.1</a>
<b>RefSeq Size:</b>	748 bp
<b>RefSeq ORF:</b>	600 bp
<b>Locus ID:</b>	30939
<b>UniProt ID:</b>	<a href="#">Q9CQJ7</a>
<b>Cytogenetics:</b>	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]

Transcript Variant: This variant (1) encodes the longer isoform (1).