

Product datasheet for **SC111734**

Prostaglandin E Synthase (PTGES) (NM_004878) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prostaglandin E Synthase (PTGES) (NM_004878) Human Untagged Clone
Tag:	Tag Free
Symbol:	Prostaglandin E Synthase
Synonyms:	MGST-IV; MGST1-L1; MGST1L1; MPGES; mPGES-1; PGES; PIG12; PP102; PP1294; TP53112
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC111734 sequence for NM_004878 edited (data generated by NextGen Sequencing)

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ATGCCTGCCACAGCCTGGTATGAGCAGCCCGGCCCTCCGGCCTTCTGCTCTGCAGC
ACGCTGCTGGTCATCAAGATGTACGTGGTGGCCATCATCACGGGCCAAGTGAGGCTGCGG
AAGAAGGCCTTTGCCAACCCCGAGGATGCCCTGAGACACGGAGGCCCCAGTATTGCAGG
AGCGACCCCGACGTGGAACGCTGCCTCAGGGCCACCGGAACGACATGGAGACCATCTAC
CCCTTCTTTTCTGGGCTTCGTCTACTCCTTTCTGGGTCTAACCCTTTTGTGCGCTGG
ATGCACTTCTGGTCTTCTCGTGGGCCGTGTGGCACACACCGTGGCCTACCTGGGGAAG
CTGCGGGCACCCATCCGCTCCGTGACCTACACCCTGGCCAGCTCCCCTGCGCCTCCATG
GCTCTGCAGATCCTCTGGGAAGCGGCCCCACCTGTGA
```

Clone variation with respect to NM_004878.4



[View online »](#)

5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_004878 unedited
TATTTTGTAAACGACTCACTATAGGCGGCCCGGAATTCGCACGAGGGTTGAGCTGCGC
TGGCCAGAGATGCCTGCCACAGCCTGGTGTATGAGCAGCCCGGCCCTCCCGGCCTTCTG
CTCTGCAGCAGCTGCTGGTCAAGATGTACGTGGTGGCCATCATCACGGGCAAGTG
AGGCTGCGGAAGAAGGCCTTTGCCAACCCCGAGGATGCCCTGAGACACGGAGGCCCCAG
TATTGCAGGACGACCCCGACGTGGAACGCTGCCTCAGGGCCACCGGAACGACATGGAG
ACCATCTACCCCTTCTTTTCTGGGCTTCGTCTACTCCTTTCTGGGTCCTAACCCCTTTT
GCCGCCTGGATGCACCTTCTGGTCTTCTCGTGGGCCGTGTGGCACACACCGTGGCCTAC
CTGGGGAAGCTGCGGGCACCCATCCGCTCCGTGACCTACACCCTGGCCAGCTCCCTGC
GCCTCCATGGCTCTGCAGATCCTCTGGGAAGCGGCCCGCCACCTGTGACCAGCAGCGGAT
GCCTCCTTGGCCACCAGACCATGGGCCAAGAGCCGCCGTGGCTATACCTGGGGACTTGAT
GTTCTTCCAGATTGTGGTGGGCCCTGAGTCTGGTTTCTGGCAGCCTGCTGCGCGTGT
GGGTCTCTGGGCACAGTGGCCTGTGTGTGCCCCGTGTGTGTATGTGTGTGTATG
TTTCTTAGCCCTTGGATTCTGCACGAAGTGGCTGATGGGAACCATNNTCAGACAGATG
TGAAGATTGATAGAAAATCCTTCAGCTAAAGTACAGAGCATCAAACATCACTTCTCTC
CCTTCCCTACAGTGAAAGAGAGAGGNAGACTCTATNTAAGAATCCCAACCTATGATCAT
CTGAATCCCGGGGCTAGATGCAGACTTTCAGACTGACCCANAAATCTGCCCCACCATCT
AGAGGCAGCTGGCCTCTGNATTTTTT
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3' Read Nucleotide Sequence:

```
>OriGene 3' read for NM_004878 unedited
NNNNNTTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
CTAAAAACACACANCTNCAGGTNCACGGGTCTAGGNANAAACACACACACACACACAC
ACACACACACACACACACACACACAGGATCCCCATCAAGGGGACATTTGCAGTTTCCAAA
CCTTGAAGATACTGAAGGACCAGAAAAGTTCCTTTGAGTGGCTGGTCACCCAAAGCTCCC
GGTCTCCACCCACTGCCCTTGGAGGGACTCAAACCTTGGGAGGAGAAGGCTGAGCTTC
CTGTGGGCCCCTCCCACCCACACCTGAGCCAGAGAGAAGACTGCAGCAAAGACATCCAAA
GCCAACGGCAAGGGAAGCGTCAGCGGGGGCAGAGGAGCCAGCCCTGTCCTTGGCTCACCC
AGCTTCCACCATAACAGGAACCCAAGACCCAGCCTTGCTTCCACAGAGAACTGGCAGGGG
TCCCCTGGCCTGGCCATCACAGGGACTCACATGGGAGCCTTTTAAACTCCAGATGGTGG
CTGAGCACAGTGATTATGCCTGTATCCAGCACTTTGGGAGGCCGAGGCCGGTGGATC
ACTTGAGGCCAGGAGTTCGAGACCCTCTGGGCAACATGGTGAACCCGTCCTACTAAAA
ATACAAAAATTAGCTGGGTATGGTGATACGCGCCTGTAATCCCAGCTACTCAGGAGGCTG
AGGCGGGAGAATCGTTTGAACCCGGGAGCGGAGGCTGCAGTGAGCCATATTGTACCACTT
CACTCCAGTTTGGGCAACAGAGCAAGACTCTGTTTTGAAAAAAAAAATACAGTGGCCAGG
CTTGCCTTATAGATGGCTGGGGCAAAATTTTTGGGGTCATCTAAAAGTCTGCATTTTTACC
CCGGGATTAAGACCATTAGTTTGGG
```

Restriction Sites:

NotI-NotI

ACCN:

NM_004878

Insert Size:

1860 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 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](#)

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_004878.3](#), [NP_004869.1](#)

RefSeq Size: 1805 bp

RefSeq ORF: 459 bp

Locus ID: 9536

UniProt ID: [O14684](#)

Cytogenetics: 9q34.11

Domains: MAPEG

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Arachidonic acid metabolism, Metabolic pathways

Gene Summary: The protein encoded by this gene is a glutathione-dependent prostaglandin E synthase. The expression of this gene has been shown to be induced by proinflammatory cytokine interleukin 1 beta (IL1B). Its expression can also be induced by tumor suppressor protein TP53, and may be involved in TP53 induced apoptosis. Knockout studies in mice suggest that this gene may contribute to the pathogenesis of collagen-induced arthritis and mediate acute pain during inflammatory responses. [provided by RefSeq, Jul 2008]