

#### **OriGene Technologies, Inc.**

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# Product datasheet for RC202405

### Prostaglandin E Synthase (PTGES) (NM\_004878) Human Tagged ORF Clone

### **Product data:**

| Product Type:                | Expression Plasmids  |
|------------------------------|--|
| Product Name:                | Prostaglandin E Synthase (PTGES) (NM_004878) Human Tagged ORF Clone  |
| Tag:                         | Myc-DDK  |
| Symbol:                      | Prostaglandin E Synthase   |
| Synonyms:                    | MGST-IV; MGST1-L1; MGST1L1; MPGES; mPGES-1; PGES; PIG12; PP102; PP1294; TP53I12  |
| Mammalian Cell<br>Selection: | Neomycin   |
| Vector:                      | pCMV6-Entry (PS100001)   |
| E. coli Selection:           | Kanamycin (25 ug/mL)   |
| ORF Nucleotide<br>Sequence:  | <pre>&gt;RC202405 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)</pre>   |
|                              | TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCC <mark>GCGATCGC</mark> C  |
|                              | ATGCCTGCCACAGCCTGGTGATGAGCAGCCCGGCCCTCCCGGCCTTCCTGCTGCAGCACGCTGCTGG<br>TCATCAAGATGTACGTGGTGGCCATCATCACGGGCCAAGTGAGGCTGCGGAAGAAGGCCTTTGCCAACCC<br>CGAGGATGCCCTGAGACACGGAGGCCCCCAGTATTGCAGGAGCGACCCCGACGTGGAACGCTGCCTCAGG<br>GCCCACCGGAACGACATGGAGACCATCTACCCCTTCCTTTTCCTGGGCTTCGTCTACTCCTTTCTGGGTC<br>CTAACCCTTTTGTCGCCTGGATGCACTTCCTGGTCTTCCTCGTGGGCCGTGTGGCACACACCGTGGCCTA<br>CCTGGGGAAGCTGCGGGCACCCATCCGCTCCGTGACCTACACCCTGGCCCAGCTCCCTGCGCCTCCATG<br>GCTCTGCAGATCCTCTGGGAAGCGGCCCGCCACCTG |
|                              | ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGGATCTGGCAGCAAATGATATCCTGGATT<br>ACAAGGATGACGACGATAAG <b>GTTTAA</b>  |
| Protein Sequence:            | >RC202405 protein sequence<br><mark>Red</mark> =Cloning site Green=Tags(s)   |
|                              | MPAHSLVMSSPALPAFLLCSTLLVIKMYVVAIITGQVRLRKKAFANPEDALRHGGPQYCRSDPDVERCLR<br>AHRNDMETIYPFLFLGFVYSFLGPNPFVAWMHFLVFLVGRVAHTVAYLGKLRAPIRSVTYTLAQLPCASM<br>ALQILWEAARHL   |
|                              | TRTRPLEQKLISEEDLAANDILDYKDDDDKV  |
| Chromatograms:               | https://cdn.origene.com/chromatograms/mk6144_g06.zip   |



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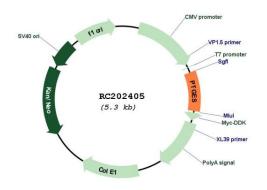
This product is to be used for laboratory only. Not for diagnostic or therapeutic use. ©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US Prostaglandin E Synthase (PTGES) (NM\_004878) Human Tagged ORF Clone – RC202405

|                             | Sgfl-Mlul  |
|-----------------------------|--|
| Cloning Scheme:             | Cloning sites used for ORF Shuttling:<br>Sgf1 ORF Miu I<br>GCGATCGC C ATG NINY ACG CGT   |
|                             | $\frac{\text{Kozac}}{\text{Consensus}}$ CTATAGGGGGGGGGAATTCGTCGGATGGGTACGGAGGAGATCTGCCGCGGCGATGGC C<br>ORF<br>$\frac{M u }{\text{ACC} GGT} \xrightarrow{Not} \frac{Not}{\text{C} GGC} \xrightarrow{Sgl}$ Myc.Tag<br>ACC GGC GGT ACG GGC GC CC GAG CAG AAA CTC ATC AT CA GAA GAG<br>T R T R P L E Q K L I S E E<br>EcoR V Flag.Tag Pmc J Fsel   |
|                             | Ecor V     Flag.Tag     Pmel     Fsel       GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGGCC     D     L     A     N     D     I     L     D     Y     K     D     D     D     K     V     stop   |
|                             | * The last codon before the Stop codon of the ORF  |
| ACCN:                       | NM_004878  |
| ORF Size:                   | 456 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. <u>More info</u>  |
| 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 M            | <ul> <li>ethod: 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> </ul> |
| RefSeq:                     | <u>NM 004878.5</u>   |
|                             | 1787 bp  |
| RefSeq Size:                |  |
| RefSeq Size:<br>RefSeq ORF: | 459 bp   |

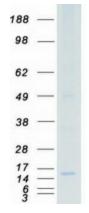
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| <b>ORIGENE</b> Prosta | glandin E Synthase (PTGES) (NM_004878) Human Tagged ORF Clone – RC202405  |
|-----------------------|---|
| UniProt ID:           | <u>014684</u>   |
| Cytogenetics:         | 9q34.11   |
| Domains:              | MAPEG   |
| Protein Families:     | Druggable Genome, Transmembrane   |
| Protein Pathways:     | Arachidonic acid metabolism, Metabolic pathways   |
| MW:                   | 17.1 kDa  |
| 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] |

## **Product images:**



Circular map for RC202405



Coomassie blue staining of purified PTGES protein (Cat# [TP302405]). The protein was produced from HEK293T cells transfected with PTGES cDNA clone (Cat# RC202405) using MegaTran 2.0 (Cat# [TT210002]).

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