

## Product datasheet for SC119598

### MGP (NM\_000900) Human Untagged Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | MGP (NM_000900) Human Untagged Clone  |
| Tag:                      | Tag Free  |
| Symbol:                   | MGP   |
| Synonyms:                 | GIG36; MGLAP; NTI   |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u>pCMV6-XL5</u>  |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| Fully Sequenced ORF:      | >OriGene ORF within SC119598 sequence for NM_000900 edited (data generated by NextGen Sequencing) |

```
ATGAAGAGCCTGATCCTTCTTGCCATCCTGGCCGCTTAGCGGTAGTAACCTTTGTGTTAT
GAATCACATGAAAGCATGGAATCTTATGAACTTAATCCCTTCATTAACAGGAGAAATGCA
AATACCTTCATATCCCCTCAGCAGAGATGGAGAGCTAAAGTCCAAGAGAGGATCCGAGAA
CGCTCTAAGCCTGTCCACGAGCTCAATAGGGAAGCCTGTGATGACTACAGACTTTGCGAA
CGCTACGCCATGGTTTATGGATACAATGCTGCCTATAATCGCTACTTCAGGAAGCGCCGA
GGGACCAAATGA
```

Clone variation with respect to NM\_000900.3

5' Read Nucleotide Sequence: >OriGene 5' read for NM\_000900 unedited

```
GCACGAGGATCCCGTAGGAGCCTCTCTCCCTACTGCTGCTACACAAGACCCTGAGACTGA
CCTGCAGGACGAAACCATGAAGAGCCTGATCCTTCTTGCCATCCTGGCCGCTTAGCGGT
AGTAACTTTGTGTTATGAATCACATGAAAGCATGGAATCTTATGAACTTAATCCCTTCAT
TAACAGGAGAAATGCAAATACCTTCATATCCCCTCAGCAGAGATGGAGAGCTAAAGTCCA
AGAGAGGATCCGAGAACGCTCTAAGCCTGTCCACGAGCTCAATAGGGAAGCCTGTGATGA
CTACAGACTTTGCGAACGCTACGCCATGGTTTATGGATACAATGCTGCCTATAATCGCTA
CTTCAGGAAGCGCCGAGGACCAAATGAGACTGAGGGAAGAAAAAATCTCTTTTTTTC
TGGAGGCTGGCACCTGATTTTGTATCCCCTGTAGCAGCATTACTGAAATACATAGGCTT
ATATAAATGCTTCTTCTGTATATTCTTGTCTGGCTGCACCCCTTTTTCCCGCCCC
CAGATTGATAAGTAATGAAAGTGCACTGCAGTGAGGGTCAAAGGAGAGTCAACATATGTG
ATTGTTCCATAATAAACTTCTGGTGTGATACTTTCAAAAAAAAAAAAAAAAAAAGTCTGACT
CTAGATTGCGGCCGCGGTATAGCTGTTTCTGAACAGATCCCGGTGGCATCCCTGTGA
CCCCTCCCAGTGCTCTCCTGGGCCCTGGAGTTGCCACTCCAGTGCCCACC
```



[View online »](#)

|                                     |  |
|-------------------------------------|--|
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_000900 unedited<br/> TTATCTTGNACGCGGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTGAAGTATCA<br/> CACCAGAAAGTTTATTATGGAACAATCACATATGTTGACTCTCCTTTGACCCTCACTGCAG<br/> TGCACTTTCATTACTTATCAATCTGGGGCGGGAAAAAGGGGTGCAGCCAGACAAGAGAA<br/> TATACAGGAAAGAAGCATTGTATATAAGCCTATGTATTCAGTAATGCTGCTACAGGGGG<br/> ATACAAAATCAGGTGCCAGCCTCCAGAAAAAAGAGATTTTTTTTTCTTCCCTCAGTCTCA<br/> TTTGGTCCCTCGCGCTTCTGAAGTAGCGATTATAGGCAGCATTGTATCCATAAACCAT<br/> GGCGTAGCGTTCGCAAAGTCTGTAGTCATCACAGGCTTCCCTATTGAGCTCGTGGACAGG<br/> CTTAGAGCGTTCTCGGATCCTCTTGGACTTTAGCTCTCCATCTCTGCTGAGGGGATAT<br/> GAAGGTATTTGCATTTCTCCTGTTAATGAAGGGATTAAGTTCATAAGATTCCATGCTTTC<br/> ATGTGATTCATAACACAAAGTTACTACCGCTAAGGCGGCCAGGATGGCAAGAAGGATCAG<br/> GCTCTTCAATGGTTTCGCTCTGCAGGTCAGTCTCAGGGTCTTGTGTAGCAGCAGTAGGGAG<br/> AGAGGCTCCTACGGGATCCTCGTGCCGAATTCGCCCGCNCCTATAGTGAGTCGTATTAC<br/> AAAATTCTGACGGTTCCTACTAACGAGCTCTGGCTATATAGACCTCCACCGTACACGCT<br/> ACCGCCCATTTGGTCAACGGGGCGGGTATTACGACATTTGGAAAGTCCCGTTGATT<br/> TTGTGCCCAAACAATCAATTGACGGTATGGGGGGGAGACTTGAAACCCCGGGAGTC<br/> AAACCGCTATCCGGCCATGGGGTACTGCCAAAAC</p> |
| <b>Restriction Sites:</b>           | NotI-NotI  |
| <b>ACCN:</b>                        | NM_000900  |
| <b>Insert Size:</b>                 | 700 bp   |
| <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>RefSeq:</b>                      | <a href="#">NM_000900.2</a> , <a href="#">NP_000891.2</a>  |
| <b>RefSeq Size:</b>                 | 661 bp   |

RefSeq ORF: 312 bp

Locus ID: 4256

UniProt ID: [P08493](#)

Cytogenetics: 12p12.3

Domains: GLA

Protein Families: Secreted Protein

**Gene Summary:** This gene encodes a member of the osteocalcin/matrix Gla family of proteins. The encoded vitamin K-dependent protein is secreted by chondrocytes and vascular smooth muscle cells, and functions as a physiological inhibitor of ectopic tissue calcification. Carboxylation status of the encoded protein is associated with calcification of the vasculature in human patients with cardiovascular disease and calcification of the synovial membranes in osteoarthritis patients. Mutations in this gene cause Keutel syndrome in human patients, which is characterized by abnormal cartilage calcification, peripheral pulmonary stenosis and facial hypoplasia. [provided by RefSeq, Sep 2016]

Transcript Variant: This variant (2) represents the shorter transcript and encodes the shorter isoform (2). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.