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Product datasheet for RC210666

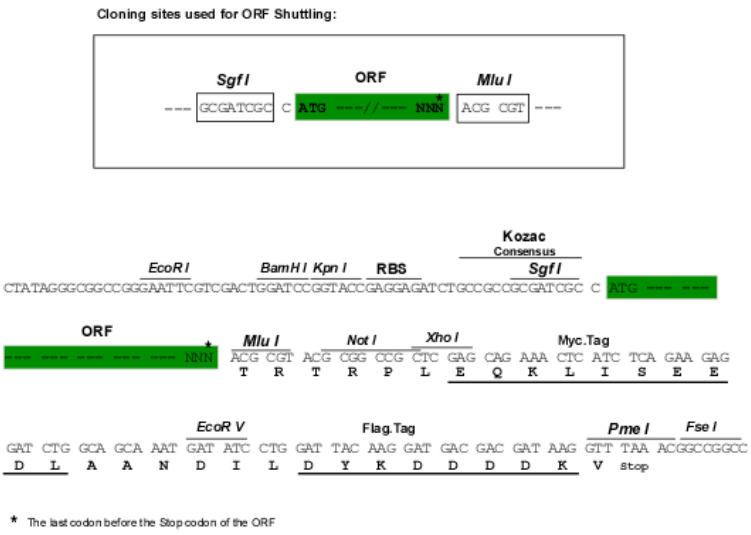
MGP (NM_000900) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MGP (NM_000900) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MGP
Synonyms:	GIG36; MGLAP; NTI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210666 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGAAGAGCCTGATCCTTCTTGCCATCCTGGCCGCCTTAGCGGTAGTAACTTTGTGTTGTGAATCACATG AAAGCATGGAATCTTATGAACTTAATCCCTTCATTAACAGGAGAAATGCAAATACCTTCATATCCCCTCA GCAGAGATGGAGAGCTAAAGTCCAAGAGAGGATCCGAGAACGCTCTAAGCCTGTCCACGAGCTCAATAGG GAAGCCTGTGATGACTACAGACTTTGCGAACGCTACGCCATGGTTTATGGATACAATGCTGCCTATAATC GCTACTTCAGGAAGCGCCGAGGGACCAAA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RC210666 protein sequence Red=Cloning site Green=Tags(s) MKSLILLAILAALAVVTLCCESHESMESYELNPFINRRNANTFISPQQRWRAKVQERIRERSKPVHELNR EACDDYRLCERYAMVYGYNAAYNRYFRKRRGTK TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mk6071_a11.zip
Restriction Sites:	SgfI-MluI

View online »

Cloning Scheme:



ACCN: NM_000900

ORF Size: 309 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.

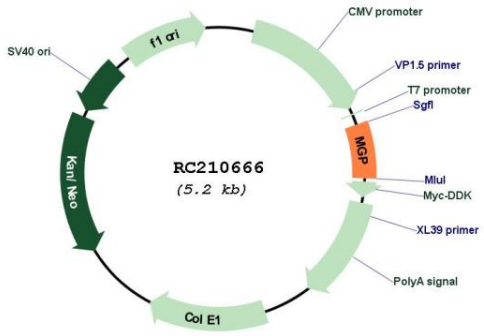
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

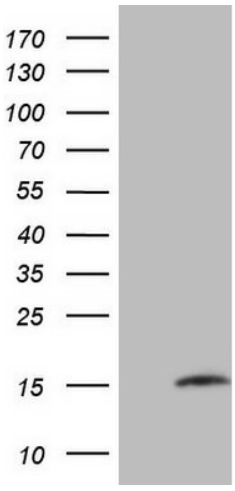
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000900.5
RefSeq Size:	1398 bp
RefSeq ORF:	312 bp
Locus ID:	4256
UniProt ID:	P08493
Cytogenetics:	12p12.3
Domains:	GLA
Protein Families:	Secreted Protein
MW:	12.3 kDa
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]

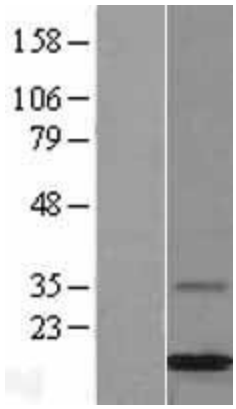
Product images:



Circular map for RC210666



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MGP (Cat# RC210666, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MGP(Cat# [TA806403]). Positive lysates [LY400323] (100ug) and [LC400323] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400323]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210666 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).