

Product datasheet for **RG233612**

Osteopontin (SPP1) (NM_001251829) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Osteopontin (SPP1) (NM_001251829) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Osteopontin
Synonyms:	BNSP; BSPI; ETA-1; OPN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG233612 representing NM_001251829 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGAATTGCAGTGATTTGCTTTTGCCTCCTAGGCATCACCTGTGCCATACCAGTTAAACAGGCTGATT
CTGGAAGTTCTGAGGAAAAGCAGACCCTTCCAAGTAAGTCCAACGAAAGCCATGACCACATGGATGATAT
GGATGATGAAGATGATGATGACCATGTGGACAGCCAGGACTCCATTGACTCGAACGACTCTGATGATGTA
GATGACACTGATGATTCTCACCAGTCTGATGAGTCTCACCATTCTGATGAATCTGATGAAGTGGTCACTG
ATTTTCCACGGACCTGCCAGCAACCGAAGTTTTCACTCCAGTTGTCCCCACAGTAGACACATATGATGG
CCGAGGTGATAGTGTGGTTTATGGACTGAGGTCAAATCTAAGAAGTTTCGCAGACCTGACATCCAGTAC
CCTGATGCTACAGACGAGGACATCACCTCACACATGAAAAGCGAGGAGTTGAATGGTGCATACAAGGCCA
TCCCCGTTGCCAGGACCTGAACGCGCCTTCTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAG
TCAGCTGGATGACCAGAGTGCTGAAACCCACAGCCACAAGCAGTCCAGATTATATAAGCGGAAAAGCCAAT
GATGAGAGCAATGAGCATTCCGATGTGATTGATAGTCAGGAACTTTCAAAGTCAGCCGTGAATTCACA
GCCATGAATTTACAGCCATGAAGATATGCTGGTTGTAGACCCAAAAGTAAGGAAGAAGATAAACACCT
GAAATTTTCGATTTCTCATGAATTAGATAGTGCATCTTCTGAGGTCAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG233612 representing NM_001251829
 Red=Cloning site Green=Tags(s)

MRIAVICFLLGITCAIPVKQADSGSSEEKQTLPSKSNESHDMDDDEDDDDHVDSQDSIDSNDSDVV
 DDTDDSHQSDSHHSDESEDELVTDFPTDLPATEVFTPVVPTVDTYDGRGDSVVYGLRSKSKFRPDIQY
 PDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDQSAETHSHKQSRLYKRKAN
 DESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKFRISHELDSASSEVN

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_001251829

ORF Size: 819 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. [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.

RefSeq: [NM_001251829.1](#), [NP_001238758.1](#)

RefSeq Size: 1511 bp

RefSeq ORF: 822 bp

Locus ID: 6696

UniProt ID: [P10451](#)

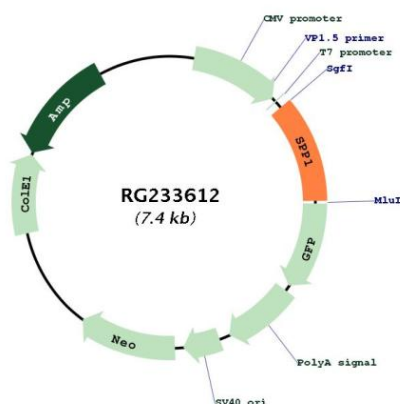
Cytogenetics: 4q22.1

Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: ECM-receptor interaction, Focal adhesion, Toll-like receptor signaling pathway

Gene Summary: The protein encoded by this gene is involved in the attachment of osteoclasts to the mineralized bone matrix. The encoded protein is secreted and binds hydroxyapatite with high affinity. The osteoclast vitronectin receptor is found in the cell membrane and may be involved in the binding to this protein. This protein is also a cytokine that upregulates expression of interferon-gamma and interleukin-12. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]

Product images:



Circular map for RG233612