

Product datasheet for RC233612

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:	Myc-DDK
Symbol:	Osteopontin
Synonyms:	BNSP; BSPI; ETA-1; OPN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC233612 representing NM_001251829 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC233612 representing NM_001251829
Red=Cloning site Green=Tags(s)

MRIAVICFLLGITCAIPVKQADSGSSEEKQTLPSKSNESHDMDDDEDDDDHVDSQDSIDSNDSDDV
 DDTDDSHQSDSHHSDEDELVTDFPTDLPATEVFTPVVPTVDTYDGRGDSVVYGLRSKSKFRPDIQY
 PDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDDQSAETHSHKQSRL YKRKAN
 DESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKFRISHELDSASSEVN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

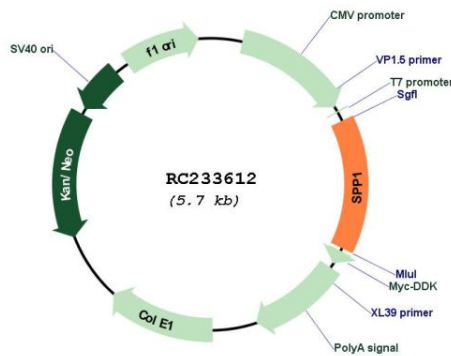
Protein Families: Druggable Genome, Secreted Protein

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

MW: 31.2 kDa

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 RC233612