OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC311077

Osteopontin (SPP1) (NM_001040058) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Osteopontin (SPP1) (NM_001040058) Human Untagged Clone
Tag:	Tag Free
Symbol:	Osteopontin
Synonyms:	BNSP; BSPI; ETA-1; OPN
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_001040058 edited
GAATTCGGCACGAGGCAAACGCCGACCAAGGAAAACTCACTACCATGAGAATTGCAGTGA
TTTGCTTTTGCCTCCTAGGCATCACCTGTGCCATACCAGTTAAACAGGCTGATTCTGGAA
GTTCTGAGGAAAAGCAGCTTTACAACAAATACCCAGATGCTGTGGCCACATGGCTAAACC
CTGACCCATCTCAGAAGCAGAATCTCCTAGCCCCACAGAATGCTGTGTCCTCTGAAGAAA
CCAATGACTTTAAACAAGAGACCCTTCCAAGTAAGTCCAACGAAAGCCATGACCACATGG
ATGATATGGATGATGAAGATGATGATGACCATGTGGACAGCCAGGACTCCATTGACTCGA
ACGACTCTGATGATGTAGATGACACTGATGATTCTCACCAGTCTGATGAGTCTCACCATT
CTGATGAATCTGATGAACTGGTCACTGATTTTCCCACGGACCTGCCAGCAACCGAAGTTT
TCACTCCAGTTGTCCCCACAGTAGACACATATGATGGCCGAGGTGATAGTGTGGTTTATG
GACTGAGGTCAAAATCTAAGAAGTTTCGCAGACCTGACATCCAGTACCCTGATGCTACAG
ACGAGGACATCACCTCACACATGGAAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCC
CCGTTGCCCAGGACCTGAACGCGCCTTCTGATTGGGACAGCCGTGGGAAGGACAGTTATG
AAACGAGTCAGCTGGATGACCAGAGTGCTGAAACCCACAGCCACAAGCAGTCCAGATTAT
ATAAGCGGAAAGCCAATGATGAGAGCAATGAGCATTCCGATGTGATTGATAGTCAGGAAC
TTTCCAAAGTCAGCCGTGAATTCCACAGCCATGAATTTCACAGCCATGAAGATATGCTGG
TTGTAGACCCCAAAAGTAAGGAAGAAGATAAACACCTGAAATTTCGTATTTCTCATGAAT
TAGATAGTGCATCTTCTGAGGTCAATTAAAAGGAGAAAAAATACAATTTCTCACTTTGCA
TTTAGTCAAAAGAAAAAATGCTTTATAGCAAAATGAAAGAGAACATGAAATGCTTCTTTC
TCAGTTTATTGGTTGAATGTGTATCTATTTGAGTCTGGAAATAACTAATGTGTTTGATAA
TTAGTTTAGTTTGTGGCTTCATGGAAACTCCCTGTAAACTAAAAGCTTCAGGGTTATGTC
TATGTTCATTCTATAGAAGAAATGCAAACTATCACTGTATTTTAATATTTGTTATTCTCT
CATGAATAGAAATTTATGTAGAAGCAAACAAAATACTTTTACCCACTTAAAAAGAGAATA
TAACATTTTATGTCACTATAATCTTTTGTTTTTTAAGTTAGTGTATATTTTGTTGTGATT
ATCTTTTTGTGGTGTGAATAAATCTTTTATCTTGAATGTAAAAAAAAAAAAAAAAAAACTC
GAC

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001040058 unedited
TACGACTCACTATAGGCGGCCGCGAATTCGGCACGAGGGGCAAACGCCGACCAAGGGAAA
ACTCACTACCATGAGAATTGCAGTGATTTGCTTTTGCCTCCTAGGCATCACCTGTGCCAT
ACCAGTTAAACAGGCTGATTCTGGAAGTTCTGAGGAAAAGCAGCTTTACAACAAATACCC
AGATGCTGTGGCCACATGGCTAAACCCTGACCCATCTCAGAAGCAGAATCTCCTAGCCCC
ACAGAATGCTGTGTCCTCTGAAGAAACCAATGACTTTAAACAAGAGACCCTTCCAAGTAA
GTCCAACGAAAGCCATGACCACATGGATGATATGGATGATGAAGATGATGATGACCATGT
GGACAGCCAGGACTCCATTGACTCGAACGACTCTGATGATGTAGATGACACTGATGATTC
TCACCAGTCTGATGAGTCTCACCATTCTGATGAATCTGATGAACTGGTCACTGATTTTCC
CACGGACCTGCCAGCAACCGAAGTTTTCACTCCAGTTGTCCCCACAGTAGACACATATGA
TGGCCGAGGTGATAGTGTGGTTTATGGACTGAGGTCAAAATCTAAGAAGTTTCGCAGACC
TGACATCCAGTACCCTGATGCTACAGACGAGGACATCACCTCACACATGGAAAGCGAGGA
GTTGAATGGTGCTACAAGGCCATCCCCGTTGCCCAGGACCTGAACGCGCCTTCTGATTGG
GACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGACCAGAGTGCTGAAACC
CACAGNCACAAGCAGTCCAGATTATATAAGCGGAAAGCCATGATGAGAGCNATGAGCATT
NCGATGTAATTGATATCAGGAACTTTNCAAGTTCAGCGTGATTNCNCAGNCATGAATTNA
CAGCATGAGAATTGCTGGTTGGAACCCCAAGTAGGAGAAGGAAACACTGAAAATTCGATC
TATGAATAAAAGGCTTTCTGGGGCATAAAGGAAAATCAATCTCCTTGGCTATCAAGAAAA
GCTTTCAGGA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001040058 unedited
GGCTTTAACTATGNNACCGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTAC
ATTCAAGATAAAAGATTTATTCACACCACAAAAAGATAATCACAACAAAATATACACTAA
CTTAAAAAACAAAAGATTATAGTGACATAAAATGTTATATTCTCTTTTTAAGTGGGTAAA
AGTATTTTGTTTGCTTCTACATAAATTTCTATTCATGAGAGAATAACAAATATTAAAATA
CAGTGATAGTTTGCATTTCTTCTATAGAATGAACATAGACATAACCCTGAAGCTTTTAGT
TTACAGGGAGTTTCCATGAAGCCACAAACTAAACTAATTATCAAACACATTAGTTATTTC
CAGACTCAAATAGATACACATTCAACCAATAAACTGAGAAAGAAGCATTTCATGTTCTCT
TTCATTTTGCTATAAAGCATTTTTTCTTTTGACTAAATGCAAAGTGAGAAATTGTATTTT
TTCTCCTTTTAATTGACCTCAGAAGATGCACTATCTAATTCATGAGAAATACGAAATTTC
AGGTGTTTATCTTCTTCCTTACTTTTGGGGTCTACAACCAGCATATCTTCATGGCTGTGA
AATTCATGGCTGTGGAATTCACGGCTGACTTTGGAAAGTTCCTGACTATCAATCACATCG
GAATGCTCATTGCTCTCATCATTGGCTTTCCGCTTATATAATCTGGACTGCTTGTGGCTG
TGGGTTTCAGCACTCTGGTCATCCAGCTGACTCGTTTCATAACTGTCCTTCCCACGGCTG
TCCCAATCAGAAGGCGCGTTCAGGTCCTGGNGCACGGGGATGGCCTTGTATGCACCATTC
AACTCCTCGCTTTCCTGTGTGAGGNGATGTCCTCGCCTGTAGCATCAGGGTACTGGATGT
CAGGTCTGCC

Restriction Sites: NotI-NotI

ACCN: NM_001040058

Insert Size: 1400 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

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_001040058.1, NP_001035147.1
RefSeq Size:	1641 bp
RefSeq ORF:	945 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] Transcript Variant: This variant (1) differs in the 5' UTR and coding sequence compared to variant 5. The resulting isoform (OPN-a, as described in PubMed: 7837791) has a shorter and distinct N-terminus compared to isoform e.