

Product datasheet for **SC125352**

Osteopontin (SPP1) (NM_000582) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Osteopontin (SPP1) (NM_000582) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Osteopontin |
| Synonyms: | BNSP; BSPI; ETA-1; OPN |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL5</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| Fully Sequenced ORF: | >OriGene ORF within SC125352 sequence for NM_000582 edited (data generated by NextGen Sequencing) |

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ATGAGAATTGCAGTGATTTGCTTTTGCCTCCTAGGCATCACCTGTGCCATACCAGTTAAA
CAGGCTGATTCTGGAAGTTCTGAGGAAAAGCAGCTTTACAACAAATACCCAGATGCTGTG
GCCACATGGCTAAACCTGACCCATCTCAGAAGCAGAATCTCCTAGCCCCACAGACCCCTT
CCAAGTAAGTCCAACGAAAGCCATGACCACATGGATGATATGGATGATGAAGATGATGAC
GACCATGTGGACAGCCAGGACTCCATTGACTCGAACGACTCTGATGATGTAGATGACACT
GATGATTCTCACCAGTCTGATGAGTCTCACCATTCTGATGAATCTGATGAACTGGTCACT
GATTTTCCCACGGACCTGCCAGCAACCGAAGTTTTCACTCCAGTTGTCCCACAGTAGAC
ACATATGATGGCCGAGGTGATAGTGTGGTTTATGGACTGAGGTCAAAATCTAAGAAGTTT
CGCAGACCTGACATCCAGTACCCTGATGCTACAGACGAGGACATCACCTCACACATGGAA
AGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCCAGGACCTGAACGCGCCT
TCTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGACCAGAGT
GCTGAAACCCACAGCCACAAGCAGTCCAGATTATATAAGCGGAAAGCCAATGATGAGAGC
AATGAGCATTCCGATGTGATTGATAGTCAGGAACCTTCCAAGTCAGCCGTGAATTCCAC
AGCCATGAATTTACAGCCATGAAGATATGCTGGTTGTAGACCCAAAAGTAAGGAAGAA
GATAAACACCTGAAATTTTCGATTTTCTCATGAATTAGATAGTGCATCTTCTGAGGTCAAT
TAA
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Clone variation with respect to NM_000582.2
240 t=>c



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| 5' Read Nucleotide Sequence: | <p>>OriGene 5' read for NM_000582 unedited TTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCACAGCATCGTCGGG ACCAGACTCGTCTCAGGCCAGTTGCAGCCTTCTCAGCCAAACGCCGACCAAGGAAAACCTC ACTACCATGAGAATTGCAGTGATTTGCTTTTGCCTCCTAGGCATCACCTGTGCCATACCA GTTAAACAGGCTGATTCTGGAAGTTCTGAGGAAAAGCAGCTTTACAACAAATACCCAGAT GCTGTGGCCACATGGCTAAACCCTGACCCATCTCAGAAGCAGAATCTCCTAGCCCCACAG ACCCTTCCAAGTAAGTCCAACGAAAGCCATGACCACATGGATGATATGGATGATGAAGAT GATGATGACCATGTGGACAGCCAGGACTCCATTGACTCGAACGACTCTGATGATGTAGAT GACACTGATGATTCTCACCAGTCTGATGAGTCTACCATTCTGATGAATCTGATGAACTG GTCACTGATTTTCCCACGGACCTGCCAGCAACCGAAGTTTTCACTCCAGTTGTCCCACA GTAGACACATATGATGGCCGAGGTGATAGTGTGGTTTATGGACTGAGGTCAAATCTAAG AAGTTTCGACAGCTGACATCCAGTACCCTGATGCTACAGACGANGACATCACCTCACAC ATGGAAAAGCGAGGAGTTGAATGGTGCATAACAAGCCATCCCCGTGCCAGACCTNGAC GCGCCTTCTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCACCTGAATGAC CAGAGTGCTGAAACCCCGAGCCCAACCAGTCCAGAATATATAACCGGGAAGCCCATGAT GAGAGCCATTGACCTTCCCGATGTGATTGATAGTCAGGAAACTTCCAAAGTCGCCCGGA ATTCCCCACCCTGAATCTCC</p> |
| 3' Read Nucleotide Sequence: | <p>>OriGene 3' read for NM_000582 unedited GTTGCGGCTCAGGGGATGGTCACTTCCCAGTTCGGGAAAGCACTGAGGCAGGGGCTCAC AGGGCATGCCACCCGGTCTGTTCAGGAAACAGCTATGACCGCGCCGCAATCTAGAGT CGAGTTTTTTTTTTTTTTTTTGCATTCAAGATAAAAGATTTATTCACACCACAAAAAGA TAATCACAAACAAATATACACTAACTTAAAAAACAAAAGATTATAGTGTCTTAAATGTT ATATTCTTTTTAAGTGGGTAAAAGTATTTGTTTGCTTCTACATAAATTTCTATTCTGT GAGAGAATAACAAATATTAATAACAGTGATAGTTTGCATTTCTTCTATAGAATGAACAT AGACATAACCCTGAAGCTTTTAGTTTACAGGGAGTTTCCATGAAGCCACAACTAACTA ATTATCAAACACATTAGTTATTTCCAGACTCAAATAGATACACATTCAACCAATAAACTG AGAAAGAAGCATTTCATGTTCTCTTTTCATTTTGCATATAAAGCATTTTTCTTTTGACTAA ATGCAAAGAGAGAAAATGATTTTTTCTCTTTAATTGACCTCAGAAGATGCACTATCT AATTCATGAGAAAATACGAAATTTTCAGGTGTTTATCTTCTCTCTACTTTTGGGGTCTACA ACCAGCATATCTTCATGGCTGTGAAATTCATGGCTGTGGAATTCACGGCTGACTTTGGAA AGTTCTGACTATCAATCACATCGGAATGCTCATTGCTCTCATCATTGGCTTTCCGCTTA TATAATCTGGACTGCTTGTGGCTGTGGTTTCAGCACTCTGGTCAATCCAGCTGACTCGTT TCATAACTGTCCCTCCCACGGGTGGCCCAATCATAAAGCGGCTTCAGTTCTGAGCAAC GGGGATGA</p> |
| Restriction Sites: | NotI-NotI |
| ACCN: | NM_000582 |
| Insert Size: | 1460 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). |
| 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). |

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| Reconstitution Method: | <ol style="list-style-type: none">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_000582.2 , NP_000573.1 |
| RefSeq Size: | 1616 bp |
| RefSeq ORF: | 903 bp |
| Locus ID: | 6696 |
| UniProt ID: | P10451 |
| Cytogenetics: | 4q22.1 |
| Domains: | OSTEO |
| Protein Families: | Druggable Genome, Secreted Protein |
| Protein Pathways: | ECM-receptor interaction, Focal adhesion, Toll-like receptor signaling pathway |
| Gene Summary: | <p>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]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR and coding sequence and lacks an alternate in-frame exon compared to variant 5. The resulting isoform (OPN-b, as described in PubMed: 7837791) has a shorter and distinct N-terminus and lacks an alternate internal segment compared to isoform e.</p> |