

Product datasheet for SC303557

OriGene Technologies, Inc.

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Bone Sialoprotein (IBSP) (NM_004967) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Bone Sialoprotein (IBSP) (NM_004967) Human Untagged Clone

Tag: Tag Free

Symbol: Bone Sialoprotein

Synonyms: BNSP; BSP; BSP-II; SP-II

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_004967 edited

ATGAAGACTGCTTTAATTTTGCTCAGCATTTTGGGAATGGCCTGTGCTTTCTCAATGAAA AATTTGCATCGAAGAGTCAAAATAGAGGATTCTGAAGAAAATGGGGTCTTTAAGTACAGG CCACGATATTATCTTTACAAGCATGCCTACTTTTATCCTCATTTAAAACGATTTCCAGTT CAGGGCAGTAGTGACTCATCCGAAGAAAATGGAGATGACAGTTCAGAAGAGGAGGAGGAA GAAGAGGAGACTTCAAATGAAGGAGAAAACAATGAAGAATCGAATGAAGATGAAGACTCT GAGGCTGAGAATACCACACTTTCTGCTACAACACTGGGCTATGGAGAGGACGCCACGCCT GGCACAGGGTATACAGGGTTAGCTGCAATCCAGCTTCCCAAGAAGGCTGGGGATATAACA GAAAACGAAGAAAGCGAAGCAGAAGTGGATGAAAACGAACAAGGCATAAACGGCACCAGT GGGGAAGAAGAAGTGTCACTGGAGCCAATGCAGAAGACACCACAGAGACCGGAAGGCAG GGCAAGGGCACCTCGAAGACAACACCTCTCCAAATGGTGGGTTTGAACCTACAACCCCA CCACAAGTCTATAGAACCACTTCCCCACCTTTTGGGAAAACCACCACCGTTGAATACGAG GGGGAGTACGAATACACGGGCGCCAATGAATACGACAATGGATATGAAATCTATGAAAGT GAGAACGGGGAACCTCGTGGGGACAATTACCGAGCCTATGAAGATGAGTACAGCTACTTT AAAGGACAAGGCTACGATGGCTATGATGGTCAGAATTACTACCACCACCAGTGA

Restriction Sites: Please inquire
ACCN: NM_004967
Insert Size: 1200 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).



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OTI Annotation: ORF matches with NM 004967.2.

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: <u>NM 004967.2, NP 004958.1</u>

 RefSeq Size:
 1108 bp

 RefSeq ORF:
 954 bp

 Locus ID:
 3381

 UniProt ID:
 P21815

 Cytogenetics:
 4q22.1

Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: ECM-receptor interaction, Focal adhesion

Gene Summary: The protein encoded by this gene is a major structural protein of the bone matrix. It

constitutes approximately 12% of the noncollagenous proteins in human bone and is synthesized by skeletal-associated cell types, including hypertrophic chondrocytes, osteoblasts, osteocytes, and osteoclasts. The only extraskeletal site of its synthesis is the trophoblast. This protein binds to calcium and hydroxyapatite via its acidic amino acid clusters, and mediates cell attachment through an RGD sequence that recognizes the

vitronectin receptor. [provided by RefSeg, Jul 2008]