

## Product datasheet for RC221537

### DSPP (NM\_014208) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DSPP (NM_014208) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DSPP
Synonyms:	DFNA39; DGI1; DMP3; DPP; DSP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221537 ORF sequence, <b>codon optimized</b> . Due to the complexity of NM_014208, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAAAATCATTACTTATTTTTGCATTTGGGCGGTGGCCTGGGCCATCCCAGTGCCGAGTCTAAACCAC  
TCGAACGGCAGCTAGAGAAAAGTATGAACCTCCACCTGTTGGCACGCTCTAACGTCAGTGTTCAGGACGA  
GCTGAATGCTTCCGGTACAATTAAGAGTCCGGGGTCTCGTCCACGAAGGCGATCGGGGGAGGCAGGAG  
AACACCAAGATGGGCACAAGGGAGAGGGTAACGGCTCCAAGTGGGCCGAGGTCGGAGGAAAAATCCTTTT  
CCACTTACTCCACTGGCTAACGAGGAGGGCAACATCGAAGGGTGAATGGAGATACCGGAAGGCAGA  
AACATATGGACACGATGGTATACATGGCAAGGAGGAGAACATCACTGCCAATGGCATCCAAGGGCAGGTT  
TCTATCATTGACAATGCCGGGGCCACCAATCGGTCTAATACCAACGGGAATACAGATAAGAATACCCAGA  
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AGGATCAAATAACTCAACTGACAATGAAGACGAGATCATCGAGAATTCATGCAGGAATGAAGGAAACACA  
AGCGAGATCACCCCAAATTAACAGTAAGCGGAATGGAACAAAGGAAGCAGAGGTGACCCAGGCACAG  
GCGAGGACGCCGCTTGATAACAGTGTGTTCCCCATCTGGCAATGGCGCCGACGAGGATGAGGATGA  
AGGGAGCGGTGACGATGAGGACGAAGAAGCAGGAAATGGCAAGGATCCAGCAACAACCTCCAAGGGGCAA  
GAAGGACAGGACCATGGGAAGGAAGATGACCACGATTCTAGTATAGGTCAAAAATTCGACTCTAAGGAGT  
ACTATGACCCGAGGGAAAAGAGGACCCCAATGAGGTGGACGGCGACAAGACGAGTAAAAGCGAGGA  
AAATTCGCTGCGATTCTGAAGACAATGGCAGCCAACGAATCGAAGATACTCAGAACTTAACACCGG  
GAGTCCAAGAGAGTGGAGAACCGCATCAGGAAGGAATCAGAGACACACCGCTGGGCAAGTCCCAGGATA



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AAGGAATTGAAATCAAGGGGCTTCAGCGGGAACCGCAACATTACAAAAGAGGTGGGAAGGGTAACGA  
AGGCAAGGAAGATAAAGGGCAGCACGGAATGATTCTGGGAAAGGGAAACGTGAAAACCTCAGGGAGAGGTG  
GTGAACATCGAGGGTCCCGGCCAAAAGTCTGAACCCGGAATAAAGTAGGTCACTCTAATACAGGTAGCG  
ATAGCAACTCTGATGGCTATGACTCTTATGATTTTACGATAAGTCAATGCAGGGAGATGACCCGAACAG  
TAGCGACAATCTAATGGTAACGATGACGCTAACAGCGAGAGCGATAACAACAGCTCTTCTCGGGGGAT  
GCATCTATAATAGCGACGAGAGTAAGGACAACGGAAAATGGATCCGATTCCAAAGGTGCAGAGGACGCG  
ACAGTGACAGTACGTACGATACAAAACACTCAGACTCCAATGGAATGGTAATAATGGTAACGATGACAA  
CGACAAGTCAGATTACAGCAAGGGAAAATCCGACAGCAGCGATTCTGATAGCTCCGATAGCTCTAACTCA  
AGTGATTCTCTGACAGCTCTGACTCTGATTCTAGTGATAGTAACAGCAGCAGCGATTCCGACTCTCTG  
ACTCTGATAGCAGTGACTCCAGCGATAGCGATTCTCCGATAGCTCCAACCTTTCAGATTCTTCAGATAG  
CAGTGACAGCAGCGACTCATCCGATAGCTCTGACTCTCAGATAGCAAAATCAGATTCTCCAAAAGCGAG  
TCCGACTCTCCGACTCCGATTCAAAAAGCGATAGCAGCGATTCAAACCTCATCTGACTCCAGTGATAATA  
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CATCCGACAGTAGCGACTCATCTGACTCATCTAATAGCTCCGATTCTCCGACTCTAGCGACTCCAACGA  
GTACTCTAATAGTTCGATAGCAGCGACTCAAGCAATTCTAGCGACTCTGACTCATCCGACAGTAGCAAT  
TCCAGTGACTCTCTGACAGTTCAAATCTCTGATTCCAGTGAATCTAGCAATTCAGTGACAACCTCCA  
ATTCATCTGATTCTCCAACCTAGCGATTCTTCCGATTCTTCCGACTCCAGTAATTCATCCGATTCCAG  
CAATAGTAGCGACTCTTCCAACCTCTCCGACTCATCAGATAGTAACAGTTCGATTCAAGCGATAGCAGC  
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ACTCTAGCGATAGTAGTGACAGTTCGAGTCTCTGATAGCTCCGACAGTAGTAACAGCAGTGACTCTTC  
CGATTCATCAGACTCATCTGATTCAAGCGATTATCAGACTCTCCGACTCTAGCGATTCAAGTGACTCT  
AGCAATAGCTCAGACAGCAGCGATTCAAGTGATTCAAGCGACAGTTCGACAGCAGCAACTCCAGCGACT  
CCAGCGACTCATCTGAAAGTAGCGATTCAAGTGACTCATCCGACTCTCTGATAGCAGTGACAGTTCGGA  
CTCATCTGATTCCAGCGACAGCAGCGATTCTCTAATTCAAGCGACAGCTCTGATTCAAGCGACAGCTCC  
GACAGCTCCGATTCTCAGATAGTAGCGATAGTAGTGATTCCAGCGACTCCAGCGATAGTAGCGATAGCA  
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ATTCAGACTCAGATAGTGAAGGGTCTGATAGCAACCATTCTACATCTGATGAT

AGCGGACCGACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_014208.2](#), [NM\\_014208.3](#), [NP\\_055023.2](#)

**RefSeq Size:** 4331 bp

**RefSeq ORF:** 3906 bp

**Locus ID:** 1834

**UniProt ID:** [Q9NZW4](#)

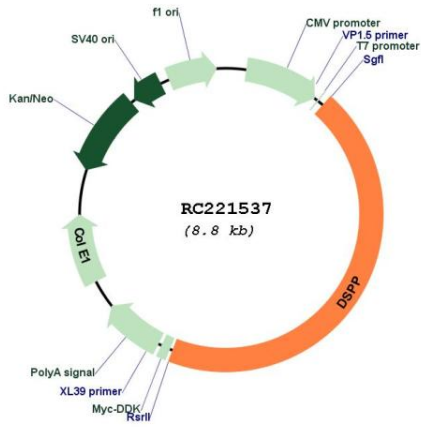
**Cytogenetics:** 4q22.1

**Protein Families:** Druggable Genome

**MW:** 131.2 kDa

**Gene Summary:** This gene encodes a member of the small integrin-binding ligand N-linked glycoprotein (SIBLING) family of proteins. The encoded preproprotein is secreted by odontoblasts and proteolytically processed to generate two principal proteins of the dentin extracellular matrix of the tooth, dentin sialoprotein and dentin phosphoprotein. These two protein products may play distinct but related roles in dentin mineralization. Mutations in this gene are associated with dentinogenesis imperfecta and dentin dysplasia. This gene is present in a gene cluster on chromosome 4. Allelic differences due to repeat polymorphisms have been found for this gene. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RC221537