

Product datasheet for RC220555

Osteocalcin (BGLAP) (NM_199173) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Osteocalcin (BGLAP) (NM_199173) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Osteocalcin
Synonyms: BGP; OC; OCN
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC220555 representing NM_199173
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAGAGCCCTCACACTCCTCGCCCTATTGGCCCTGGCCGCACTTTGCATCGCTGGCCAGGCAGGTGCGA
 AGCCCAGCGGTGCAGAGTCCAGCAAAGGTGCAGCCTTTGTGTCCAAGCAGGAGGGCAGCGAGGTAGTGAA
 GAGACCCAGGCGCTACCTGTATCAATGGCTGGGAGCCCCAGTCCCCTACCCGGATCCCCTGGAGCCAGG
 AGGGAGGTGTGTGAGCTCAATCCGGACTGTGACGAGTTGGCTGACCACATCGGCTTCAGGAGCCATC
 GCGCTTCTACGGCCCGTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220555 representing NM_199173
 Red=Cloning site Green=Tags(s)
 MRALTLALLALLAALCIAGQAGAKPSGAESSKGAAFVSKQEGSEVVKRPRRYLYQWLGPVPYPPDPLEPR
 REVCELNPDCDELADHIGFQEAYRRFYGPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6103_d08.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_199173

ORF Size: 300 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_199173.6](#)

RefSeq Size: 498 bp

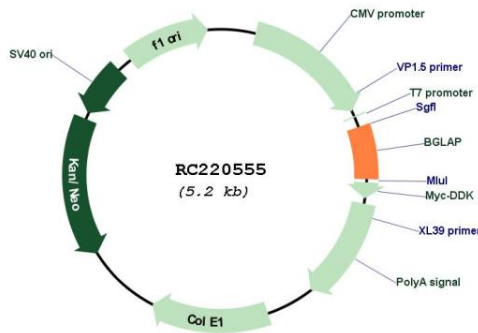
RefSeq ORF: 303 bp

Locus ID: 632

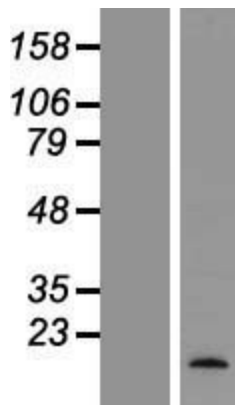
UniProt ID: [P02818](#)
Cytogenetics: 1q22
Protein Families: ES Cell Differentiation/IPS, Secreted Protein
MW: 8.7 kDa

Gene Summary: This gene encodes a highly abundant bone protein secreted by osteoblasts that regulates bone remodeling and energy metabolism. The encoded protein contains a Gla (gamma carboxyglutamate) domain, which functions in binding to calcium and hydroxyapatite, the mineral component of bone. Serum osteocalcin levels may be negatively correlated with metabolic syndrome. Read-through transcription exists between this gene and the neighboring upstream gene, PMF1 (polyamine-modulated factor 1), but the encoded protein only shows sequence identity with the upstream gene product. [provided by RefSeq, Jun 2015]

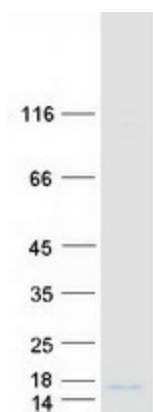
Product images:



Circular map for RC220555



Western blot validation of overexpression lysate (Cat# [LY404673]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220555 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BGLAP protein (Cat# [TP320555]). The protein was produced from HEK293T cells transfected with BGLAP cDNA clone (Cat# RC220555) using MegaTran 2.0 (Cat# [TT210002]).