

## Product datasheet for MR205682

### Bgn (NM\_007542) Mouse Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Bgn (NM_007542) Mouse Tagged ORF Clone                            |
| Tag:                      | Myc-DDK   |
| Symbol:                   | Bgn   |
| Synonyms:                 | BG; DSPG1; PG-S1; PGI; S; SLRR1A                                  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >MR205682 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGTCCCTGTGGCTACTCACCTTGCTGCTGGCCCTGAGCCAGGCCTTGCCCTTTGAGCAGAAGGGTT  
TCTGGGACTTACCTTGGATGATGGGCTGCTCATGATGAATGATGAGGAGGCTTCAGGTTTACAGACACCAC  
TTCAGGTGTCCCGACCTGGACTCTGTACACCTACCTTCAGTGCATGTGTCCTTCGGTTGCCACTGC  
CACCTGCGGGTTGTTCACTGCTGACTTGGGTCTGAAGACTGTGCCAAGGAGATCTCACCTGACACCA  
CACTGCTAGACCTGCAGAACAAATGACATTTCTGAGCTTCGAAGGATGACTTCAAAGGCCTCCAGCACCT  
CTACGCCCTGGTCTTGGTAAACAATAAGATCTCCAAGATCCATGAGAAGGCCTTTAGCCCTCTGCGGAAG  
CTGCAAAAACCTACATCTCCAAGAACCACCTGGTGGAGATTCCTCCCAACCTGCCAGCTCCCTGGTAG  
AACTACGAATCCATGACAACCGTATCCGCAAAGTGCCCAAGGGCGTGTTCAGCGGGCTCCGGAACATGAA  
CTGCATTGAGATGGGCGGGAATCCCTGGAGAACAGTGGCTTTGAACCAGGAGCCTTTGATGGCCTGAAG  
CTCAATTACCTGCGCATCTCAGAGGCCAAGCTCACTGGCATCCCCAAAGATCTCCCTGAGACCCTGAACG  
AACTTACCTGGACCACAACAAAATCCAGGCTATTGAGTTGGAGGACCTACTTCGATACTCCAAGCTGTA  
CAGGTTGGGCTTAGGTCACAATCAGATTCGATGATTGAGAATGGGAGCCTGAGTTTTCTGCCTACCCTG  
AGGGAACCTCACTTGGACAACAACAGCTGTCCCGGGTGCCTGCTGGCCTCCAGATCTCAAGCTCCTCC  
AGGTTGTCTATCTGCACTCCAACAACATCACCAAGGTGGGCATCAATGACTTCTGTCTATGGGCTTCGG  
AGTCAAGAGGGCCTACTATAATGGCATAGCCTCTTCAACAACCTGTGCCCTACTGGGAAGTGCAGCCT  
GCCACCTCCGCTGCGTTACTGACCGCCTGGCCATCCAATTTGAAATTATAAGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205682 protein sequence  
Red=Cloning site Green=Tags(s)

MCPLWLLTLLALSQLPFEQKGFWDFTLDDGLLMMNDEEASGSDTTSGVPDLDSVTPTFSAMCPFGCHC  
 HLRVVQCSDLGLKTPKEISPDTTLLDLQNDISELRKDDFKGLQHLVALVNNKISKIHEKAFSPLRK  
 LQKLYISKNHLEVEIPPNLPSSELVLRIDHNRIRKVPKGVFSGLRNMNCIEMGGNPLENSGFEPGAFDGLK  
 LNYLRISEAKLTGIPKDLPETLNLHLHDHNKIQAIELEDLLRYSKLYRLGLGHNQIRMIENGLSFLPTL  
 RELHLDNNKLSRVPAGLPDLKLLQVVYLHSNNITKVGINDFCPMGFVGVKRAYNGISLFNNPVVYWEVQP  
 ATFRCVTDRLAIQFGNYKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_007542

**ORF Size:** 1110 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\\_007542.5](#)

**RefSeq Size:** 2389 bp

**RefSeq ORF:** 1110 bp

**Locus ID:** 12111

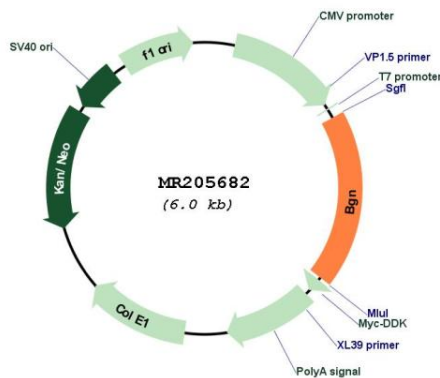
**UniProt ID:** [P28653](#)

**Cytogenetics:** X 37.33 cM

**MW:** 41.6 kDa

**Gene Summary:** This gene encodes a small, leucine-rich repeat proteoglycan that plays important roles in bone mineralization and connective tissue metabolism. The encoded preproprotein undergoes post-translational processing during which chondroitin sulfate or dermatan sulfate chains are attached before incorporation into the extracellular matrix. Mice lacking the encoded protein exhibit reduced growth rate and acquire diminished bone mass progressively with age. [provided by RefSeq, Oct 2015]

**Product images:**



Circular map for MR205682