

Application : Functional Assay

Alternative Name : BGN, DSPG1, MRLS, PG-S1, PGI, SEMDX, SLRR1A, Biglycan, Bone/cartilage proteoglycan I, Biglycan Proteoglycan, MRLS.

Source: Sf9, Insect cells.

Sterile filtered colorless solution.

Biglycan (BGN) is a small cellular or pericellular matrix proteoglycan which takes part in assembly of collagen fibrils and muscle regeneration. BGN is closely correlated in structure to two other small proteoglycans, decorin and fibromodulin. BGN interacts with several proteins involved in muscular dystrophy, including alpha-dystroglycan, alpha- and gamma-sarcoglycan and collagen VI. BGN is also critical for the assembly of the dystrophin-associated protein complex.

BGN produced in Sf9 Insect cells is a single, glycosylated polypeptide chain containing 340 amino acids (38-368 a.a.) and having a molecular mass of 38.3kDa (Molecular size on SDS-PAGE will appear at approximately 40-57kDa). BGN is expressed with a 9 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

Amount : 2 µg / 10 µg

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| Purification : | Greater than 90.0% as determined by SDS-PAGE. |
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Content : The BGN solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.

Storage condition : Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Amino Acid : ADPDEEASGA DTSGVLDPDS VTPTYSAMCP FGCHCHLRVV QCSDLGLKSV PKEISPDRTL LDLQNNDISE LRKDDFKGLQ HLYALVLVNN KISKIHEKAF SPLRKLOKLY ISKNHLVEIP PNLPSLVEL RIHDNRIRKV PKGVFSLRN MNCIEMGGNP LENS GFEPGA FDGLKLNLYR ISEAKLTGIP KDLPETLNEL HLDHNNKIQAI ELEDLLRYSK LYRLGLGHNQ IRMIENGSL FLPTLRELHL DNNKLARVPS GLPDLKLLQV VYLHSNNITK VGVNDFCPMG FGVKRAYNG ISLFNNPVY WEVOPATFRC VTDRLAIOFG NYKKHHHHHHH.

The ED50 for this effect is ≤ 20 ug/ml. The specific activity is measured by inhibiting the cell growth using 3T3- L1 mouse embryonic $\hat{\Delta}\hat{\Delta}$ fibroblast $\hat{\Delta}\hat{\Delta}$ adipose-like cells.