



Recombinant Protein Technical Manual  
Recombinant Human Biglycan/BGN Protein (His Tag)  
RPES3420

### Product Data:

**Product SKU:** RPES3420

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P21810

### Protein Information:

**Molecular Mass:** 40.5 kDa

**AP Molecular Mass:** 50 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Biglycan; Bone/Cartilage Proteoglycan I; PG-S1; BGN; SLRR1A

## Immunogen Information:

**Sequence:** Glu20-Lys368

## Background:

Biglycan is a 200-350 kD proteoglycan consisting of a 45 kD core protein and two chondroitin/dermatan sulfate glycosaminoglycan chains. Biglycan binds to TGF- $\beta$ . It also binds to collagen type I in low ionic strength (less than 3 mM phosphate) buffer. At higher ionic strengths, Biglycan does not bind to collagen type I. It enhances the inhibition effect of TGF- $\beta$  on osteoclast proliferation at a concentration of 4-20 mg/ml. It also prevents the attachment of CHO cells to fibronectin, with a 50% inhibition at 17-21 mg/ml.