



Recombinant Protein Technical Manual

**Recombinant Mouse Bone Sialoprotein 2/IBSP
Protein (His Tag)**
RPES2092

Product Data:

Product SKU: RPES2092

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q61711

Protein Information:

Molecular Mass: 35.1 kDa

AP Molecular Mass: 71 kDa

Tag: C-His

Bio-activity:

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

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

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°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 PBS, pH 7.4.

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

Application:

Synonyms: BNSP; Bone sialoprotein 2; Bone sialoprotein; BSP; BSP2; BSPII; Cell binding sialoprotein; IBSP; Integrin binding sialoprotein; SP II; Sialoprotein II

Immunogen Information:

Sequence: Phe17-Gln324

Background:

Bone sialoprotein 2 (IBSP) is a monomeric non-collagenous member of the SIBLING family of extracellular matrix proteins. It is principally associated with the early stages of bone mineralization. Mouse IBSP is synthesized as a 324 amino acid (aa) precursor that contains a 16 aa signal sequence and a 308 aa mature region. The mature segment is divided into a basic N-terminus (aa 17 - 62), a central region (aa 63 - 233), and an acidic C-terminus (aa 234 - 317). IBSP is highly glycosylated, sulfated and phosphorylated. Phosphorylation promotes HAp nucleation, while carbohydrate may regulate cell adhesion. IBSP binds tightly to hydroxyapatite, appears to form an integral part of the mineralized matrix. It is probably important to cell-matrix interaction and promotes Arg-Gly-Asp-dependent cell attachment.