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**Product Data Sheet**


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Product Name: Pleiotrophin Human

Cat. No.: GP20832

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	PTN; Heparin Affin Regulatory Protein; HARP; Heparin-binding growth factor-8; HBGF-8; Osteoblast-Specific Factor-1; OSF-1; Heparin-binding growth-associated molecule; HB-GAM; HBNF-1 Heparin-binding brain mitogen; Heparin-binding neurite outgrowth-promoting factor 1; HBBM; NEGF1.		
Amino Acid Sequence	GKKEKPEKKV KKSDCGEWQW SVCVPTSGDC GLGTREGTRT GAECKQTMKT QRCKIPCNWK KQFGAECKYQ FQAWGECDLN TALKTRTGSL KRALHNAECQ KTVTISKPCG KLTKPKPQAE SKKKKKEGKK QEKMLD.		
Solubility	It is recommended to reconstitute the lyophilized Pleiotrophin in sterile 18M-cm H <sub>2</sub> O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The Pleiotrophin protein was lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.		

**Introduction**

Pleiotrophin (Osteoblast-Specific Factor-1, OSF-1) contains 136 amino acid residues. The sequence is very rich in cationic amino acids (24% of the residues); lysine cluster sequences are found in the N-terminal and C-terminal ends of the structure. The OSF-1 gene was shown by Northern blotting analysis to be expressed in mouse calvarial osteoblast-enriched cells and in mouse brain tissues, but not in thymus, spleen, kidney, liver, lung, testis or heart. Pleiotrophin has the ability to promote adhesion, migration, expansion, and differentiation of human osteoprogenitor cells. In addition to certain types of cancer, the embryonic growth and differentiation factor pleiotrophin is found also in adults in inflammatory diseases. In osteoarthritis, pleiotrophin is especially expressed in early stages, and its concentrations in the synovial fluid could serve as a

**Caution: Product has not been fully validated for medical applications. For research use only.**

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marker for the progress of the disease. Pleiotrophin might be involved in cartilage repair in osteoarthritis, in particular, in earlier stages.

### Stability

Lyophilized Pleiotrophin although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution Pleiotrophin should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

Pleiotrophin Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 136 amino acids and having a molecular mass of 15.3kDa. The Pleiotrophin is purified by proprietary chromatographic techniques.

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