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# California Bioscience

## Product Datasheet

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| **Product Name** | Pleiotrophin Human Recombinant |
| **Cata No** | CB500353 |
| **Source** | *Escherichia Coli* |
| **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. |

### Description

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

Pleiotrophin Human Recombinant contains His-Tagged Fusion Protein, produced in *E. coli*, its molecular weight is 17.3 kDa protein containing 136 amino acid residues of the OSF-1 human and 16 additional amino acid residues - HisTag, thrombin cleavage site (underlined).

**MKHHHHHHHM LVPRGS**GKKE KPEKKVKKSD CGEWQWSVCV PTSGDCGLGT REGTRTGAEC KQTMKTQRCK IPCNWKKQFG AECKYQFQAW GECDLNTALK TRTGSLKRAL HNAECQKTVT ISKPCGKLTK PKPQAESKKK KKEGKKQEKM LD

### Purity

Greater than 95% as determined by SDS-PAGE.

### Formulation

Sterile filtered and lyophilized from 0.5 mg/ml in 0.1M phosphate buffer and 0.1M NaCl, pH 7.2

### Stability

Store lyophilized protein at -20℃. Aliquot the product after reconstitution to **avoid repeated freezing/thawing cycles**. Reconstituted protein can be stored at 4℃ for a limited period of time; it d oes not show any change after two weeks at 4℃.
The lyophilized protein remains stable until the expiry date when stored at -20℃.

### Applications

Western blotting, ELISA

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