Catalog # PLN-H5244



#### Synonym

neurite growth-promoting factor 1,HARP,HBBM,HB-GAM,HBGF8,HBNF,HBNF1,HBNF-1,Heparin-binding brain mitogen,HNGF-8,NEGF1HBGF-8,OSF-1,Osteoblast-specific factor 1

#### Source

Human Pleiotrophin Protein, His Tag, premium grade(PLN-H5244) is expressed from E. coli cells. It contains AA Gly 33 - Asp 168 (Accession # <u>P21246</u>). Predicted N-terminus: His

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

## **Molecular Characterization**

Poly-his Pleiotrophin(Gly 33 - Asp 168) P21246

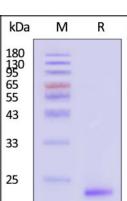
This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 17.2 kDa. The protein migrates as 22-23 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE).

## Endotoxin

Less than 0.1 EU per  $\mu g$  by the LAL method.

## **SDS-PAGE**



## Sterility

Negative

# Mycoplasma

Negative.

## Purity

>95% as determined by SDS-PAGE.

#### Formulation

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.



Human Pleiotrophin Protein, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein</u> <u>Marker</u>).



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## Background

Pleiotrophin and Midkine are structurally related heparin-binding neurotrophic factors, whose expression is developmentally regulated. The expression pattern of these neurotrophic factors suggests function in neurogenesis, cell migration, secondary organogenetic induction, and mesoderm epithelial interaction. The expression of PTN increases during the process of brain embryogenesis, and reaches maximum levels at time of birth. The physiological roles of PTN and Midkine are largely unknown, but these neurotrophins have been implicated in the pathogenesis of neuroblastomas. Recombinant Human Pleiotrophin is a 15.4 kDa protein containing 136 amino acid residues and five intra-molecular disulfide bonds.

#### **Clinical and Translational Updates**



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