

Recombinant Human Pleiotrophin

Cat. No. PTN-343H **Lot. No.** (See product label)

SPECIFICATION

Species	Human
Source	Sf21 Cells
Description	Pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1), also known as PTN is a growth, differentiation inducing cytokine, and neurite extension promoting polypeptide which is highly expressed in brain and in tissues derived from mesenchyme. PTN is produced by many different human cancers and stimulates tumor blood vessel formation when it is expressed in malignant cancer cells. It is expressed in many types of cancer, such as gliomas, melanomas, meningiomas, neuroblastomas, choriocarcinomas, leukemias and cancers of pancreas, prostate, stomach, colon, breast, ovaries and lungs.
Molecular Weight	The predicted molecular weight of Recombinant Human PTN is 15.3 kDa. However, the actual molecular weight as observed by migration on SDS Page is 18 kDa.
State Of Matter	Lyophilized.
Formulation	This recombinant protein was 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.
Purity	>97% by SDS Page and analyzed by silver stain.
Endotoxin	<1.0 EU/g as determined by the LAL method.

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Biological Activity

The biological activity of Human PTN was determined by its ability to enhance neurite outgrowth of cerebral cortical neurons of E10 chick embryos (Hampton, B.S. et al., 1992, Mol. Biol. Cell 3:85 - 93). Optimal neurite outgrowth was observed when neurons were plated on 96 well culture plates that had been pre-coated with 100 μ L/well of a solution of 3 - 8 μ g/mL rhPTN.

Storage

This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name

PTN pleiotrophin [[Homo sapiens](#)]

Synonyms

Pleiotrophin; HARP; HBNF; HBGF8; NEGF1; PTN; heparin binding growth factor 8; heparin affin regulatory protein; neurite growth-promoting factor 1; HB-GAM; heparin-binding growth-associated molecule; pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1); HBBM; HBGF-8; HBNF-1; OSF-1; Heparin-binding brain mitogen; Heparin-binding growth factor 8; Heparin-binding growth-associated molecule; Heparin-binding neurite outgrowth-promoting factor 1; Osteoblast-specific factor 1

Gene ID

5764

mRNA Refseq

[NM_002825](#)

Protein Refseq

[NP_002816](#)

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MIM	162095
UniProt ID	P21246
Chromosome Location	7q33
Function	phosphoprotein phosphatase inhibitor activity; growth factor activity; heparin binding

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