

Growth Factor Data Sheet

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Pleiotrophin (PTN) is a heparin-binding protein, expression of which is developmentally regulated. It is expressed primarily in brain tissues, but is also expressed in lung, kidney, gut, and bone tissues and can be induced by PDGF. PTN is expressed in some tumor cells as well. PTN is involved in a diverse array of functions including mitogenesis, angiogenesis, tissue repair, and neurite outgrowth. It exhibits strong mitogenic activity towards hepatocytes and plays a role in liver regeneration. PTN binds to several different receptors including syndecan-3, PTP-zeta, and ALK. The nucleotide sequence of Human pleiotrophin is about 50% homologous to human midkine (MDK).

Catalog Number	1170-21
Product Name	PTN, Human Recombinant Human Pleiotrophin (PTN) Neurite Growth-Promoting Factor 1 (NEGF1) Heparin-Binding Growth Factor 8 (HBGF8) Heparin-Binding Neurite Outgrowth-Promoting Factor (HBNF) Heparin-Binding Neurotrophic Factor
Source	<i>Escherichia coli</i>
MW	~15.3 kDa (136 amino acids)
Sequence	GKKEKPEKKV KKSDCGEWQW SVCVPTSGDC GLGTREGTRT GAECKQTMKT QRCKIPCNWK KQFGAECKYQ FQAWGECDLN TALKTRTGSL KRALHNAECQ KTVTISKPCG KLTKPKPQAE SKKKKKEGKK QEKMLD
Accession Number	P21246
Purity	>96% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The biological activity was measured by its ability to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons, when neurons were plated on 96 well culture plates that had been pre-coated with 100 µl/well of a solution of 5-10 µg/ml rHuPTN.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.