

## Recombinant Human Pleiotrophin (rHuPTN)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:	107-21
Source:	Escherichia coli.
Molecular Weight:	Approximately 15.3 kDa, a single non-glycosylated polypeptide chain containing 136 amino acids.
Quantity:	5µg /20µg /1000µg
AA Sequence:	GKKEKPEKKV KKSDCGEWQW SVCVPTSGDC GLGTREGTRT GAECKQTMKT
	QRCKIPCNWK KQFGAECKYQ FQAWGECDLN TALKTRTGSL KRALHNAECQ
	KTVTISKPCG KLTKPKPQAE SKKKKKEGKK QEKMLD
Purity:	> 96 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	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.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.
Endotoxin:	Less than 0.1 EU/µg of rHuPTN as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the
	bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a
	concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and
	stored at $\leq$ -20 $\mathbb{C}$ . Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature
	recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
	• 12 months from date of receipt, -20 to -70 °C as supplied.
	• 1 month, 2 to 8 °C under sterile conditions after reconstitution.
	• 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further
	evaluation purposes. NOT FOR HUMAN USE.

## Human Pleiotrophin

Pleiotrophin, also named heparin-binding brain mitogen (HBBM), is belonging to the heparin-binding proteins family and is encoded by the PTN gene in humans. Pleiotrophin is expressed in an activity-dependent manner in the hippocampus. Pleiotrophin expression is low in other areas of the adult brain, but it can be induced by ischemic insults. The cell surface-expressed nucleolin is a low affinity receptor for PTN binding to cells and it is also implicated in PTN entry into cells by an active process. Human pleiotrophin shares above 98 % amino acid sequence identity with bovine, rat and murine.

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