

PTN

Recombinant Human Pleiotrophin / HBGF-8

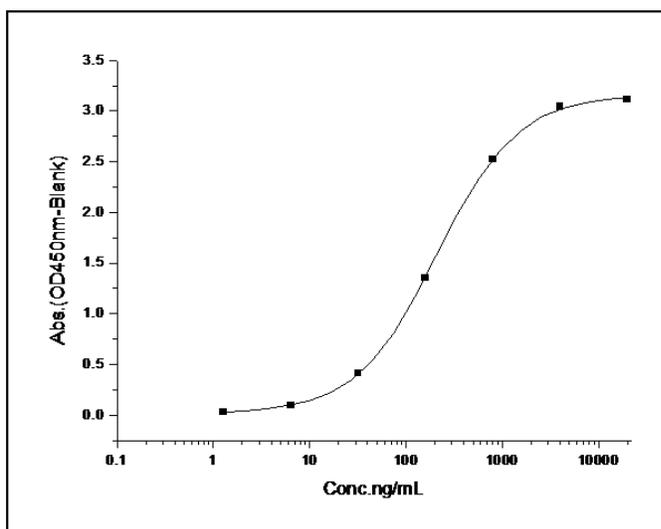
Catalog No.	CRH441A CRH441B CRH441C CRH441D	Quantity:	20 µg 100 µg 1.0 mg 500 µg
Alternate Names:	Pleiotrophin, PTN2, Heparin-binding brain mitogen, HBBM1, Heparin-binding growth factor 8, HBGF-8, Heparin-binding growth-associated molecule, HB-GAM, Heparin-binding neurite outgrowth-promoting factor, HBNF, Heparin-binding neurite outgrowth-promoting factor 1, HBNF-1, Osteoblast-specific factor 1, OSF-1		
Description:	HB-GAM belongs to the pleiotrophin family. During embryonic and early postnatal development, HB-GAM is expressed in the central and peripheral nervous system and also in several non-neural tissues, notably lung, kidney, gut and bone. While in the adult central nervous system, it is expressed in an activity-dependent manner in the hippocampus where it can suppress long term potentiation induction. HB-GAM has a low expression in other areas of the adult brain, but it can be induced by ischemic insults, or targeted neuronal damaged in the entorhinal cortex or in the substantia nigra pars compacta. It is structurally related to midkine and retinoic acid induced heparin-binding protein and has a high affinity for heparin. HB-GAM binds anaplastic lymphoma kinase (ALK) which induces MAPK pathway activation, an important step in the anti-apoptotic signaling of PTN and regulation of cell proliferation. It also functions as a secreted growth factor and induces neurite outgrowth and which is mitogenic for fibroblasts, epithelial, and endothelial cells.		
UniProt ID:	P21246		
Accession Number:	NP_002816.1		
Protein Construction:	A DNA sequence encoding the mature form of human PTN (Met1-Asp168) was expressed.		
Source:	Baculovirus-Insect Cells		
Molecular Weight:	The recombinant human PTN consists of 136 amino acids and predicts a molecular mass of 15.3 KDa. It migrates as an approximately 19 KDa band in SDS-PAGE under reducing conditions.		
Formulation:	Lyophilized from sterile 20mM Tris, 1M NaCl, pH 8.0 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Purity:	> 90 % as determined by SDS-PAGE.		
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method		
Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized human PTN at 10 µg/ml (100 µl/well) can bind rat SDC1-Fc, The EC50 of rat SDC1-Fc is 0.35-0.81 µg/ml.		
Predicted N-terminal:	Met		



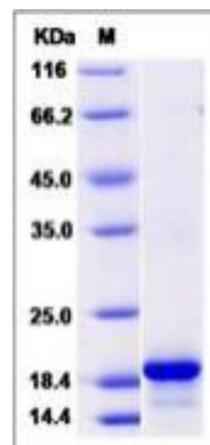
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C. After reconstitution, store working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

Measured by its binding ability in a functional ELISA. Immobilized human PTN at 10 µg/ml (100 µl/well) can bind rat SDC1-Fc (Cat: 80344-R02H). The EC₅₀ of rat SDC1-Fc is 0.35-0.81 µg/ml.



SDS-PAGE



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