

Active Pleiotrophin (PTN) Instruction Manual

SBPB114Hu01

Homo sapiens (Human)

Buffer Formulation	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	9.6
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

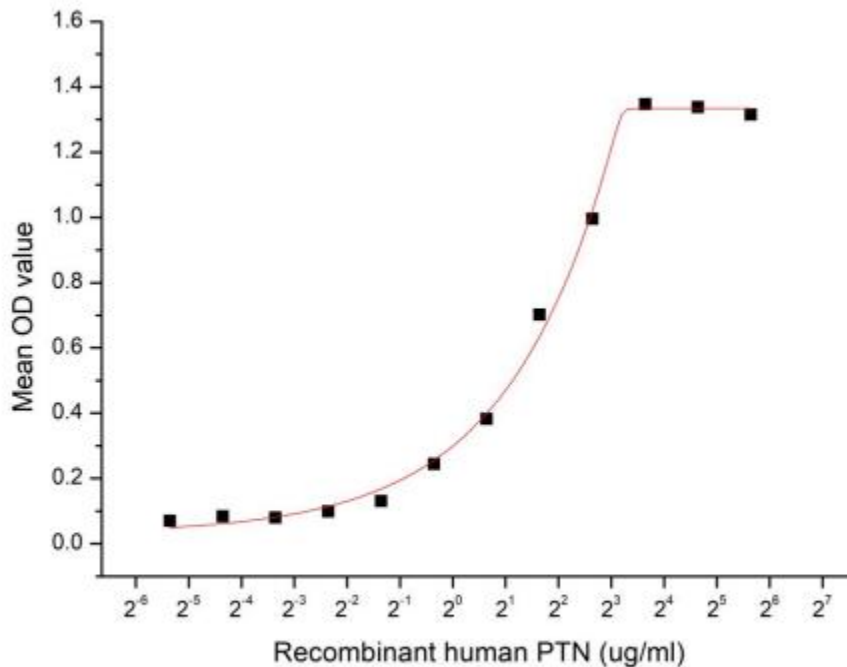


Figure 1. The binding activity of PTN and SDC1

Pleiotrophin (PTN) is a 136 amino acid secreted heparin-binding cytokine that signals diverse functions, including lineage-specific differentiation of glial progenitor cells, neurite outgrowth, and angiogenesis. A considerable amount of research has been carried out to understand the mechanisms by which PTN regulates these events. PTN has now been shown to bind a diverse collection of receptors including Syndecan 1 (SDC1). A functional binding ELISA assay was conducted to detect the interaction of recombinant

human PTN and recombinant human SDC1. Briefly, PTN were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to SDC1-coated (2 ug/ml, 100 ul/well) microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with PTN pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the wells and read at 450nm immediately. The binding activity of recombinant human PTN and recombinant human SDC1 was shown in Figure 1, the EC50 was 3.47 ug/ml.

USAGE

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image



Figure. SDS-PAGE

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.