Mouse Pleiotrophin / PTN / HB-GAM Protein (Fc Tag)

Catalog Number: **51000-M01H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

HARP, HB-GAM, HBBN, HBGF-8, HBNF, OSF, Osf-1, Osf1

Protein Construction:

A DNA sequence encoding the mouse PTN (P63089) (Gly 33-Asp 168) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Glu

Molecular Mass:

The recombinant mouse PTN/Fc is a disulfide-linked homodimer. The reduced monomer comprises 396 amino acids and has a calculated molecular mass of 43.7 kDa. The apparent molecular mass of the monomer is approximately 47 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

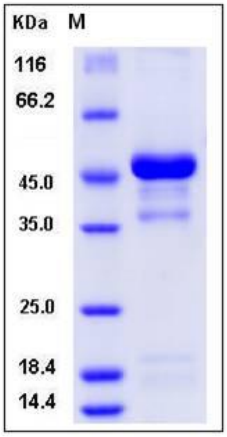
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

HB-GAM belongs to the pleiotrophin family. It is structurally related to midkine and retinoic acid induced heparin-binding protein. HB-GAM has a high affinity for heparin. 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, HB-GAM 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. As a secreted growth factor, HB-GAM induces neurite outgrowth and which is mitogenic for fibroblasts, epithelial, and endothelial cells. It also 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.

References

1. Vanderwinden JM. et al., 1992, Anat Embryol. 186 (4): 387-406.
2. Lauri SE. et al., 1996, Neuroreport. 7 (10): 1670-4.
3. Pavlov I. et al., 2002, Mol Cell Neurosci. 20 (2): 330-42.