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Recombinant Human Persephin

Catalog # PBG10361

Specification

Recombinant Human Persephin - Product Information

Recombinant Human Persephin - Additional Information

Description
Persephin is a disulfide-linked homodimer neurotrophic factor structurally related to GDNF, Artemin, and Neurturin. These proteins belong to the cysteine-knot family of growth factors that assume stable dimeric structures. Persephin signals through a multicomponent receptor system, composed of RET and one of four GFR α (α1-α4) receptors. The GFRα4 was first identified in chicken and was later shown to be the preferential binding subunit for Persephin. Persephin promotes the survival of ventral midbrain dompaminergic neurons and motor neurons after sciatic nerve oxotomy, and like GNDF, promotes ureteric bud branching. However, in contrast to GDNF and Neurturin, Persephin does not support survival of peripheral neurons. Recombinant human Persephin is a disulfide-linked homodimer, composed of two 10.4 kDa polypeptide chains (194 total amino acid residues). Each chain contains seven conserved cysteine residues, one of which (Cys 63) is used for inter-chain disulfide bridging and the others are involved in intramolecular ring formation known as the cysteine knot configuration. Manufactured under license from the University of Washington patent# US 6,716,600; US 6,692,943; US 6,645,937; US 6,403,335; US 6,232,449; US 6,222,022.

BiologicalActivity
Human Persephin induces RET phosphorylation using a concentration range of 0.1-1.0 ng/ml. Human Persephin binds to mammalian GFRa4 with the Kd of 100pM. Other members of the GDNF family (Artemin, GDNF and Neurturin) do not bind to mammalian GFRa4.

Authenticity
Verified by N-terminal and Mass Spectrometry analyses (when applicable).

Endotoxin
Endotoxin level is <0.1 ng/ μg of protein (<1EU/ μg).

Protein Content
Verified by UV Spectroscopy and/or SDS-PAGE gel.

Storage
-20°C

Precautions
Recombinant Human Persephin is for research use only and not for use in diagnostic or therapeutic procedures.

Recombinant Human Persephin - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Recombinant Human Persephin - Images