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PSPN
Recombinant Human Persephin

Catalog No.	CRP400B	**Quantity:**	20 µg

Alternate Names: PSP, PSPN

Description: Persephin is a disulfide-linked homodimer neurotrophic factor structurally related to GDNF, Artemin, and Neurturin. 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. 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.

UniProt ID: O60542

GeneID: 5623

Source: *E. coli*

Molecular Weight: 10.4 kDa (194 aa) monomer

Formulation: Lyophilized from sterile-filtered 0.3x PBS, pH 7.2.

Purity: >90% by SDS-PAGE and HPLC analyses

Endotoxin Level: <1 EU/µg

Biological Activity: 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 100 pM. Other members of the GDNF family (Artemin, GDNF and Neurturin) do not bind to mammalian GFRa4.

Amino Acid Sequence: RALSGPCQLW SLTLSVAELG LGYASEEKVI FRYCAGSCPR GARTQHGLAL ARLQGQGRAH GGPCCRPTRY TDVAFLDDRH RWQRLPQLSA AACGCGG

Reconstitution: **Centrifuge vial prior to opening.** Reconstitute with PBS to a concentration of not less than 100 µg/ml. After complete solubilization of the protein, it can be further diluted into other buffered solutions such as PBS pH 7.0.

Storage & Stability: Lyophilized protein is stable for 1 year at -20°C to -80°C. Store reconstituted protein in working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles**.

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