

32-20522: Recombinant Human Persephin(Discontinued)

Reactivity : Human, Mouse, Rat

Alternative Name : PSP, PSPN

Description

Source: **E.coli** Persephin is a disulfide-linked, homodimeric, 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 Alpha (Alpha 1-Alpha 4) receptors. The GFRA4 was first identified in chicken, and was later shown to be the preferential binding subunit for persephin. Persephin promotes the survival of ventral midbrain dopaminergic neurons and motor neurons after sciatic nerve oxotomy, and, like GDNF, promotes ureteric bud branching. However, in contrast to GDNF and neurturin, persephin does not support the 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 64) is used for inter-chain disulfide bridging, and the others are involved in the intramolecular ring formation known as the cysteine knot configuration.

Product Info

Amount : 5 µg / 20 µg

Purification : Purity: >= 98% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : RALSGPCQLW SLTSLVAELG LGYASEEKVI FRYCAGSCPR GARTQHGLAL ARLQGQGRAH GGPCCRPTRY TDVAFLDDRH RWQLPQLSA AACGCGG

Application Note

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.