Persephin Murine E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Murine
Other names: PSP, PSPN

Cat. No.:

RBG20110005	(5 µg)
RBG20110020	(20 µg)
RBG20110100	(100 µg)

Description

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 (alpha1-alpha4) receptors. The GFRalpha4 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 Murine Persephin is a disulfide-linked homodimer, composed of two 10.3 kDa polypeptide chains (192 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 the intramolecular ring formation known as the cysteine knot configuration.

Research topic

Neural tissue markers

Amino Acid Sequence

ALAGSCRLWS LTLPVAELGL GYASEEKVIF RYCAGSCPQE ARTQHSLVLA RLRGRGRAHG RPCCQPTSYA DVTFLDDQHH WQQLPQLSAA ACGCGG

Source

E. coli

Purity

98%

Biological Activity

The ED_{50} was determined by its ability to stimulate proliferation of human thyroid carcinoma cells (TT cells) is ? 0.1 ng/ml, corresponding to a specific activity of ? 1×107 units/mg.

Endotoxin

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

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at-20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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