Persephin, murine recombinant

CATALOG #:	7186-10	10 µg
	7186-50	50 µg
ALTERNATE NAMES:	PSP, PSPN	
SOURCE:	E. coli	
PURITY:	≥ 98% by SDS-PAGE gel and HPLC analyses	
MOL. WEIGHT:	10.3 kDa	
ENDOTOXIN LEVEL:	< 0.1 ng/µg of protein (<1EU/µg).	
FORM:	Lyophilized	
FORMULATION:	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Citrate, pH 4.0	
STORAGE CONDITIONS:	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

RECONSTITUTION:
Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. 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.

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 GFRα (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 murine Persephin is a disulfide-linked homodimer, composed of two 10.3 kDa polypeptide chains (96 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.

AMINO ACID SEQUENCE:
ALAGSCRLWS LTLPVAELGL GYASEEKVIF RYCAGSCPQE ARTQHSLVLA RLRGRGRAHG RPCCQPTSYA DVTFLDDQHH WQQLPQLSAA ACGCGG

BIOLOGICAL ACTIVITY:
Determined by its ability to stimulate proliferation of human thyroid carcinoma cells (TT cells). The expected ED_{50} is ≤ 0.1 ng/ml, corresponding to a specific activity of ≥ 1 x 10^7 units/mg.

RELATED PRODUCTS:

- Persephin, human recombinant **(Cat # 7185-10, -50)**
- Neuritin, human recombinant **(Cat # 7179-10, -50)**
- Artemin, human recombinant **(Cat # 4515-20, -1000)**
- GDNF, murine recombinant **(Cat. No. 7156-10, -50)**
- GDNF, rat recombinant **(Cat. No. 7157-10, -50)**
- GDNF, human recombinant **(Cat. No. 4097-10, -50, 100)**
- GDNF Antibody **(Cat. No. 5098-100)**
- GDNF Antibody **(Cat. No. 5198-100)**
- GDNF Blocking peptide **(Cat. No. 5098BP-50)**

FOR RESEARCH USE ONLY! Not to be used in humans.