

**Persephin, human recombinant protein**  
**PSP, PSPN**  
**Catalog # PBV10815r****Specification**

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**Persephin, human recombinant protein - Product info**

Primary Accession [O60542](#)  
Calculated MW **10.4 kDa**

**Persephin, human recombinant protein - Additional Info**

Gene ID	<b>5623</b>
Gene Symbol	<b>PSPN</b>
<b>Other Names</b>	
PSP, PSPN	
Gene Source	<b>Human</b>
Source	<b>E. Coli</b>
Assay&Purity	<b>SDS-PAGE; ≥98%</b>
Assay2&Purity2	<b>HPLC;</b>
Recombinant	<b>Yes</b>
Sequence	<b>RALSGPCQLW SLTLSVAELG LGYASEEKVI FRYCAGSCPR GARTQHGLAL ARLQGQGRAH GGPCCRPTRY TDVAFLDDRH RWQRLPQLSA AACGCGG</b>

**Target/Specificity**  
Persephin

**Application Notes**

Centrifuge the vial prior to opening. Reconstitute in 5 mM Sodium Phosphate, pH 7.5 to a concentration of ≤ 0.5 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.

**Format**

Lyophilized powder

**Storage**

-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized from 0.3 x PBS, pH 7.2

**Persephin, human recombinant protein - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Persephin, human recombinant protein - Images**

### **Persephin, human recombinant protein - Background**

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 $\alpha$  ( $\alpha$ 1- $\alpha$ 4) receptors. The GFR $\alpha$ 4 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 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.

### **Persephin, human recombinant protein - References**

Milbrandt J., et al. Neuron 20:245-253(1998).