



## Recombinant Protein Technical Manual

**Recombinant Human Contactin 3/CNTN3 Protein  
(708 Asp/Asn, His Tag)(Active)**  
RPES0965

### Product Data:

**Product SKU:** RPES0965

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_065923.1

### Protein Information:

**Molecular Mass:** 109.2 kDa

**AP Molecular Mass:** 12030 kDa

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of C6 Rat brain glial cells. When 5 x 10E4 cells/well are added to CNTN3 coated plates (0.8 µg/ml and 100 µl/well), approximately 35%-55% will adhere specifically after 60 minutes at 37°C.

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** BIG;PANG;PCS

## Immunogen Information:

**Sequence:** Met 1-Ser1002, 708 Asp/Asn

## Background:

Contactins are a subgroup of molecules belonging to the immunoglobulin superfamily that are expressed exclusively in the nervous system. The subgroup consists of six members: Contactin, Contactin-2(TAG), Contactin-3(BIG), BIG-2, Contactin-5(NB-2) and NB-3. Since their identification in the late 1980s, Contactin and Contactin-2 have been studied extensively. Axonal expression and the neurite extension activity of Contactin and Contactin-2 attracted researchers to study the function of these molecules in axon guidance during development. Contactin and Contactin-2 have come to be known as the principal molecules in the function and maintenance of myelinated neurons. In contrast, the function of the other four members of this subgroup remained unknown until recently. Contactin-3, also known as CNTN3 ( BIG in rat and PANG in mouse ), is a GPI-linked glycoprotein that is expressed on cerebellar Purkinje cells, amygdaloid and thalamic neurons and olfactory granule cells. In the brain, Contactin-3 is expressed in frontal lobe, occipital lobe, cerebellum and amygdala. Contactin-3 contains 4 fibronectin type-III domains and 6 Ig-like C2-type (immunoglobulin-like) domains. Human Contactin-3 shares 92% aa identity with mouse Contactin-3. The exact function of Contactin-3 is unclear. Contactin-3 may mediate cell-cell interaction and may promote neurite outgrowth.