# Recombinant Human Contactin 3/CNTN3 Protein (708 Asp/Asn, Fc Tag)

**Catalog Number: PKSH031803**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

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|---|---|
| **Species** | Human |
| **Source** | HEK293 Cells-derived Human Contactin 3/CNTN3 protein Met 1-Ser 1002; 708 Asp/Asn, with an C-terminal hFc |
| **Calculated MW** | 134.5 kDa |
| **Observed MW** | 160-170 kDa |
| **Accession** | NP_065923.1 |
| **Bio-activity** | Measured by the ability of the immobilized protein to support the adhesion of C6 Rat brain glial cells. When 5 x $10^4$ cells/well are added to CNTN3 coated plates (0.8 μg/ml and 100 μl/well), approximately 30%-50% will adhere specifically after 60 minutes at 37°C. |

## Properties

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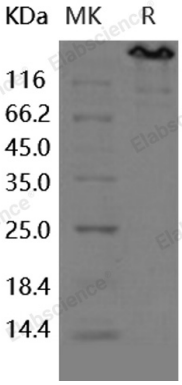
| **Purity** | > 90 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 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 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 90 % as determined by reducing SDS-PAGE.

## 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-1; Contactin-2(TAG-1); Contactin-3(BIG-1); BIG-2; Contactin-5(NB-2) and NB-3. Since their identification in the late 1980s; Contactin-1 and Contactin-2 have been studied extensively. Axonal expression and the neurite extension activity of Contactin-1 and Contactin-2 attracted researchers to study the function of these molecules in axon guidance during development. Contactin-1 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-1 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.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