

**Recombinant Human Contactin 1 / CNTN1 Protein (His tag)**

**Cat.NO.: TP07944**

3th Edition

**Synonyms:**Contactin 1;F3;GP135;MYPCN

**Description:**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-1 is a cell surface adhesion molecule that is normally expressed by neurons and oligodendrocytes. Particularly high levels of Contactin-1 are present during brain development. Contactin-1 and Contactin-2 are differentially expressed in a number of neuronal tissues during development, and they interact with several ligands including Nr-CAM, L1, NCAM, neurocan, phosphacan, and tenascin. As a cell adhesion molecule, Contactin-1 plays a role in the formation of axon connections in the developing nervous system. It was demonstrated that Contactin-1 participates in signal pathways via its association with Contactin-associated protein (CNTNAP1), receptor protein tyrosine phosphatase beta (RPTPb) and NOTCH1. Contactin-1 is also involved in paranodal axo-glia junction formation and oligodendrocytes generation. Furthermore, studies indicated that Contactin-1 functions importantly in the invasion and metastasis of lung adenocarcinoma cells. Contactin-1 may also significantly influence the functional expression and distribution of Na<sup>+</sup> channels in neurons.

**Form:**PBS

**Molecular Weight:**110 kDa

**Sequences:**Met 1-993

**Purity:**> 95% by HPLC

**Concentration:**

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.