



Recombinant Protein Technical Manual

Recombinant Human Contactin 2/CNTN2 Protein (His Tag)(Active) RPES4156

Product Data:

Product SKU: RPES4156

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_005067.1

Protein Information:

Molecular Mass: 109 kDa

AP Molecular Mass: 140 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 CNTN2-coated plates (0.8 µg/ml and 100 µl/well), approximately 40%-60% will adhere specifically after 60 minutes at 37°C.

Purity: > 95 % 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 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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

Application:

Synonyms: Contactin-2; Axonal glycoprotein TAG; Axonin; Transient axonal glycoprotein 1; CNTN2; AXT; TAG1; TAX1

Immunogen Information:

Sequence: Met 1-Asn 1012

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-2, also known as CNTN2, is a glycosylphosphatidylinositol (GPI)-anchored neuronal membrane protein that functions as a cell adhesion molecule. The human, rat, and chicken Contactin-2 are alternatively known as TAX1 (transiently-expressed axonal glycoprotein), TAG1 (transient axonal glycoprotein), and axonin, respectively. Human Contactin-2 shares approximately 91% and 75% amino acid sequence identity with rat and chicken Contactin-2, respectively. Contactin-2 is expressed by a subset of neuronal populations in the developing central nervous system (CNS) and peripheral nervous system (PNS). Contactin-2 is also expressed by oligodendrocytes and Schwann cells, which are myelinating glial cells of the CNS and PNS, respectively. Contactin-2 may play a role in the formation of axon connections in the developing nervous system. Contactin-2 is also involved in glial tumorigenesis and may provide a potential target for therapeutic intervention. During embryonic development, Contactin-2 interacts either in a homophilic, or heterophilic fashion with various transmembrane proteins.