



Recombinant Protein Technical Manual

Recombinant Human Contactin 5/CNTN5 Protein (His Tag)(Active) RPES2455

Product Data:

Product SKU: RPES2455

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_055176.1

Protein Information:

Molecular Mass: 116 kDa

AP Molecular Mass: 13040 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 CNTN5 coated plates (0.8 µg/ml and 100 µl/well), approximately 30%-50% 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 PBS, pH 7.4

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

Application:

Synonyms: HNB-2s;NB-2

Immunogen Information:

Sequence: Met 1-Gln 1059

Background:

Contactins are a subgroup of molecules belonging to the immunoglobulin superfamily that are expressed mainly 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-5, also known as NB-2, is one of the neural recognition molecules in the contactin subgroup. Contactin-5 is expressed in brain and kidney and at very low level in placenta. In brain, Contactin-5 is highly expressed in the occipital lobe, amygdala, cerebral cortex, frontal lobe, thalamus and temporal lobe. Mice deficient in the Contactin-5 gene exhibit aberrant responses to acoustic stimuli. Contactin-5 may play a role in maturation of glutamatergic synapses in the brainstem during the final stages of auditory development. Contactin-5 gene may contribute to human neurological disorders.