



Recombinant Protein Technical Manual

Recombinant Human RTN4/NOGO-A Protein (GST Tag)(Active)

RPE1554

Product Data:

Product SKU: RPE1554

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: NP_065393.1

Protein Information:

Molecular Mass: 46.2 kDa

AP Molecular Mass: 48 kDa

Tag: N-GST

Bio-activity: Measured by its ability to bind recombinant human RTN4R in a functional ELISA.

Purity: > 92 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

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 20mM Tris, 150mM NaCl, 1mM DTT, 0.2mM GSH, pH 7.0

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

Application: Functional ELISA

Synonyms: ASY;DGU;DKFZp781L1143;HIGM4;Nbla00271;Nbla10545;NI220/250;NOGO;NOGO-A;Nogo-B;Nogo-C;NOGOC;NSP;NSP-CL;RTN-X;RTN4-A;RTN4-B1;RTN4-B2;RTN4-C;UDG;UNG1;UNG15;UNG2

Immunogen Information:

Sequence: Met 1-Val 185

Background:

Reticulon-4, also known as Foccen, Neurite outgrowth inhibitor, Nogo protein, Neuroendocrine-specific protein, Neuroendocrine-specific protein C homolog, RTN-x, Reticulon-5 and RTN4, is a multi-pass membrane protein which contains one reticulon domain. Isoform 1 of RTN4 is specifically expressed in brain and testis and weakly in heart and skeletal muscle. Isoform 2 of RTN4 is widely expressed except for the liver. Isoform 3 of RTN4 is expressed in brain, skeletal muscle and adipocytes. Isoform 4 of RTN4 is testis-specific. Reticulon-4 / RTN4 is a developmental neurite growth regulatory factor with a role as a negative regulator of axon-axon adhesion and growth, and as a facilitator of neurite branching. Reticulon-4 / RTN4 regulates neurite fasciculation, branching and extension in the developing nervous system. Reticulon-4 / RTN4 is involved in down-regulation of growth, stabilization of wiring and restriction of plasticity in the adult CNS. It regulates the radial migration of cortical neurons via an RTN4R-LINGO1 containing receptor complex. Isoform 2 of RTN4 reduces the anti-apoptotic activity of Bcl-xl and Bcl-2. This is likely consecutive to their change in subcellular location, from the mitochondria to the endoplasmic reticulum, after binding and sequestration. Isoform 2 and isoform 3 of RTN4 inhibit BACE1 activity and amyloid precursor protein processing.