Recombinant Protein Technical Manual

Recombinant Human Neuregulin/NRG1--β1 Protein (EGF Domain, Fc Tag)(Active)

RPES0762

Product Data:

Product SKU: RPES0762

Size: 5µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q02297-6

Protein Information:

Molecular Mass:	36.7 kDa
AP Molecular Mass:	38 kDa
Tag:	N-Fc
Bio-activity:	1. Measured by its binding ability in a functional ELISA.2. Immobilized Rhesus ErbB3 at 2 µg/mL (100 µl/well) can bind human NRG1 (isoform Beta1), The EC50 of human NRG1 (isoform Beta1) is 0.58 µg/mL.3. Immobilized human ErbB3 at 2 µg/mL (100 µl/well) can bind human NRG1 (isoform Beta1), The EC50 of human NRG1 (isoform Beta1) is 0.43 µg/mL.
Purity:	> 86 % 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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:	Functional ELISA
Synonyms:	Pro-neuregulin;Neuregulin beta 1;NRG1-beta 1;HRG1-beta 1; EGF;NRG1; GGF; HGL; HRGA; NDF; SMDF;

Immunogen Information:

Sequence: Thr 176-Lys 246

Background:

Neuregulin 1 or NRG1 is one of four proteins in the neuregulin family that act on the EGFR family of receptors. This growth factor was originally identified as a 44-kD glycoprotein that interacts with the NEU / ERBB2 receptor tyrosine kinase to increase its phosphorylation on tyrosine residues. NRG1 is a trophic factor that has been implicated in neural development, neurotransmission, and synaptic plasticity. NRG1 has multiple isoforms that are generated by usage of different promoters and alternative splicing of a single gene. Neuregulin 1 (NRG1) is essential for the development and function of multiple organ systems, and its dysregulation has been linked to diseases such as cancer and schizophrenia. NRG1 is a schizophrenia candidate gene and plays an important role in brain development and neural function. Schizophrenia is a complex disorder, with etiology likely due to epistasis.