

## Recombinant Human Neuregulin-1/NRG1-β1 Protein (EGF Domain, Fc Tag)

Catalog Number: PKSH031068

Note: Centrifuge before opening to ensure complete recovery of vial contents.

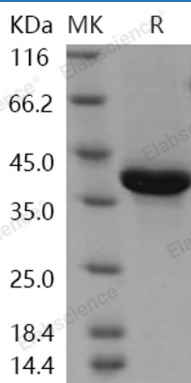
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human Neuregulin-1/NRG1-β1 protein Thr 176-Lys 246, with an N-terminal hFc
<b>Calculated MW</b>	36.7 kDa
<b>Observed MW</b>	38 kDa
<b>Accession</b>	Q02297-6
<b>Bio-activity</b>	1. Immobilized Rhesus ErbB3 at 2 µg/mL (100 µl/well) can bind human NRG1 (isoform Beta1), The EC <sub>50</sub> of human NRG1 (isoform Beta1) is 0.58 µg/mL. 2. Immobilized human ErbB3 at 2 µg/mL (100 µl/well) can bind human NRG1 (isoform Beta1), The EC <sub>50</sub> of human NRG1 (isoform Beta1) is 0.43 µg/mL.

### Properties

<b>Purity</b>	> 86 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 86 % as determined by reducing SDS-PAGE.

### Background

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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.

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