

## Recombinant Human Neuritin/NRN1 Protein (Baculovirus, His Tag)

Catalog Number: PKSH030790

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

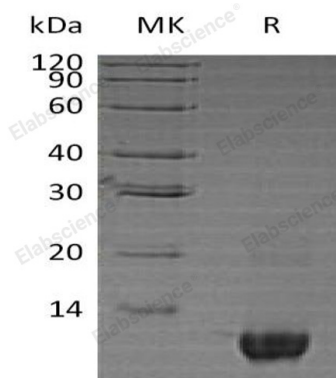
### Description

<b>Species</b>	Human
<b>Source</b>	Baculovirus-Insect Cells-derived Human Neuritin/NRN1 protein Met 1-Asn 115, with an C-terminal His
<b>Calculated MW</b>	11 kDa
<b>Observed MW</b>	11 kDa
<b>Accession</b>	Q9NPD7
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 85 % 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 20mM Tris, 500mM NaCl, pH 8.0, 10% glycerol 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



> 85 % as determined by reducing SDS-PAGE.

### Background

Neuritin 1 (NRN1) is a member of neuritin family. Neuritin is a glycosylphosphatidylinositol- anchored protein induced by neural activity. It is expressed in postmitotic-differentiating neurons of the developing nervous system and a population of small-diameter neurons in the dorsal root ganglia and was anterogradely and retrogradely transported. Neuritin message is induced by neuronal activity and by the activity-regulated neurotrophins BDNF; nerve growth factor (NGF) and NT-3. Purified recombinant neuritin promotes neurite outgrowth and arborization in primary embryonic hippocampal and cortical cultures. Thus; neuritin is considered as a downstream effector of activity-induced neurite outgrowth. In clinical; neuritin levels in diabetes were reduced in both dorsal root ganglia and sciatic nerve of rats; and these deficits were reversed in vivo by treatment with NGF. This manipulation of neuritin levels in diabetes may provide a potential target for the therapeutic intervention in the management of neuropathy.

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