



# Recombinant Protein Technical Manual

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

RPES2033

### Product Data:

**Product SKU:** RPES2033

**Size:** 20µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** Q9NPD7

### Protein Information:

#### Molecular Mass:

**AP Molecular Mass:** 11 kDa

**Tag:** C-His

#### Bio-activity:

**Purity:** > 85 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg of the protein 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 20mM Tris, 500mM NaCl, pH 8.0, 10% gly

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

#### Application:

**Synonyms:** dJ380B8.2;MGC44811;NRN

## Immunogen Information:

**Sequence:** Met 1-Asn 115

## 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.