



# Recombinant Protein Technical Manual

**Recombinant Human Pro-Neuregulin/NRG1-β1  
Protein (aa 176-246)  
RPES2828**

## Product Data:

**Product SKU:** RPES2828

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q02297-6

## Protein Information:

**Molecular Mass:** 8.2 kDa

**AP Molecular Mass:** 7 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 95 % 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°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 a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4.

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

**Application:**

**Synonyms:** Pro-neuregulin;Neuregulin beta 1;NRG1-beta 1;HRG1-beta 1; EGF;NRG1; GGF; HGL; HRGA; NDF; SMDF;

## Immunogen Information:

**Sequence:** Thr176-Lys246

## Background:

neuregulin (heregulin, NRG1) is a member of neuregulin family, which is comprised of four genes that encode a large number of secreted or membrane-bound isoforms. All family members share an EGF-like domain that interacts with the ErbB family of tyrosine kinase receptors. NRG1 isoforms can be classified into type I, type II and type III isoforms. NRG1 directs ligand for ERBB3 and ERBB4 tyrosine kinase receptors, concomitantly recruits ERBB1 and ERBB2 coreceptors, resulting in ligand-stimulated tyrosine phosphorylation and activation of the ERBB receptors. NRG proteins show distinct spatial and temporal expression patterns and play important roles during development of both the nervous system and the heart.