# Recombinant Human Pro-neuregulin-1/NRG1 (Beta1) Protein

## Catalog No.: RP01825



## Sequence Information

**Species**
Human

**Gene ID**
3084

**Swiss Prot**
Q02297-6 (Beta1)

**Tags**
No-Tag

**Synonyms**
GGF; HGL; HRG; NDF; ARIA; GGF2; HRG1; HRGA; SMDF; MST131; MSTP131; NRG1-IT2;Pro-neuregulin-1;NRG1 (Beta1)

## Product Information

**Source**
*E. coli*

**Purification**
≥ 90 % as determined by SDS-PAGE.

**Calculated MW**
8.06 kDa

**Observed MW**
10-15 kDa

**Endotoxin**
< 1 EU/μg of the protein by LAL method.

**Formulation**
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

**Reconstitution**
Centrifμge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

neuregulin-1 (heregulin-1， NRG1) is a member of neuregulin family, which is comprised of four genes thatencode a large number of secreted or membrane-bound isoforms. All family members share an EGF-likedomain that interacts with the ErbB family of tyrosine kinase receptors. NRG1 isoforms can be classified intotype 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 phosphorylationand activation of the ERBB receptors. NRG proteins show distinct spatial and temporal expression patterns andplay important roles during development of both the nervous system and the heart.

## Basic Information

**Description**
Recombinant Human Pro-neuregulin-1/NRG1 (Beta1) Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Thr 176-Lys 246) of human Pro-neuregulin-1/NRG1 (Beta1) (Accession #NP_039250.2) fused with no tag.

**Activity**
Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The $ED_{50}$ for this effect is typically 0.62-2.48 ng/mL, corresponding to a specific activity of $4.03\times10^5$~$1.61\times10^6$ units/mg.

**Shipping**
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

**Storage**
Store at -20℃

**Operational Notes**
For your safety and health, please wear a lab coat and disposable gloves for handling.

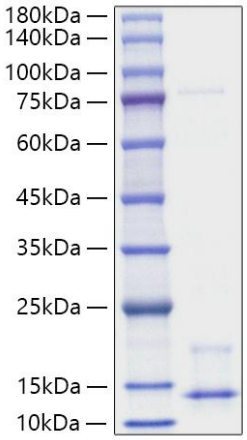
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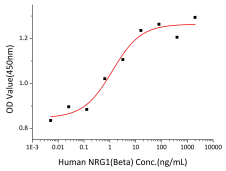


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## Validation Data




Recombinant Human Pro-neuregulin-1/NRG1 (Beta1) Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.




Recombinant Human Pro-neuregulin-1/NRG1 (Beta1) stimulates serum-free cell proliferation assay using MCF-7 human breast cancer cells. The $ED_{50}$ for this effect is typically 0.62-2.48 ng/mL, corresponding to a specific activity of $4.03\times10^{5}$~$1.61\times10^{6}$ units/mg.