

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

Catalog No.: RP01825 Recombinant

Sequence Information

Species Gene ID Swiss Prot Human 3084 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 Purification

E. coli ≥ 90 % as
determined by SDSPAGE

Calculated MW Observed MW

8.06 kDa 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.

Contact

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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.

Bio-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 $4.03\times10^5\sim1.61\times10^6$ units/mg.

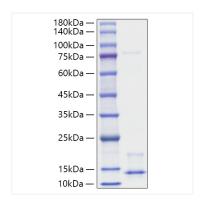
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

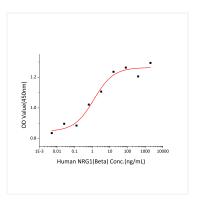
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

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 $4.03\times10^5\sim1.61\times10^6$ units/mg.