

RP01825

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

Catalog No.: RP01825

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
<I>E. coli</I>	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
<I>E. coli</I>	≥ 90 % as determined by SDS-PAGE.

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

Centrifuge 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 stabilizer (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 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.

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 ED₅₀ for this effect is typically 0.62-2.48 ng/mL, corresponding to a specific activity of 4.03×10⁵~1.61×10⁶ 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.

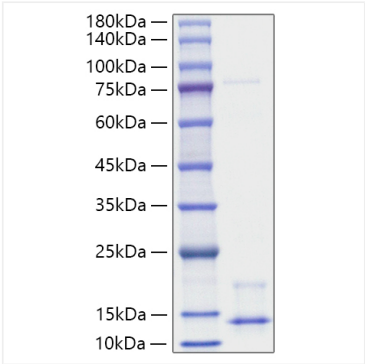
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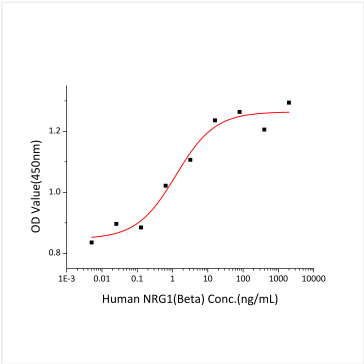
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* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Human Pro-neuregulin-1/NGR1 (Beta1) Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human Pro-neuregulin-1/NGR1 (Beta1) stimulates serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED₅₀ for this effect is typically 0.62-2.48 ng/mL, corresponding to a specific activity of 4.03×10⁵~1.61×10⁶ units/mg.