

## NRG1-beta 1 Protein, Human (246a.a, His)

<b>Cat. No.:</b>	HY-P70967
<b>Synonyms:</b>	Pro-neuregulin-1; Neuregulin-1 beta 1; NRG1-beta 1; HRG1-beta 1 ECD; NRG1; GGF; HGL; HRGA; NDF; SMDF;
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	AAA58639.1 (M1-K246)
<b>Gene ID:</b>	3084
<b>Molecular Weight:</b>	Approximately 35.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> M S E R K E G R G K   G K G K K K E R G S   G K K P E S A A G S   Q S P A L P P Q L K E M K S Q E S A A G   S K L V L R C E T S   S E Y S S L R F K W   F K N G N E L N R K N K P Q N I K I Q K   K P G K S E L R I N   K A S L A D S G E Y   M C K V I S K L G N D S A S A N I T I V   E S N E I I T G M P   A S T E G A Y V S S   E S P I R I S V S T E G A N T S S S T S   T S T T G T S H L V   K C A E K E K T F C   V N G G E C F M V K D L S N P S R Y L C   K C P N E F T G D R   C Q N Y V M A S F Y   K H L G I E F M E A E E L Y Q K           </pre>
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 4 mM HCl or 50 mM Tris-HCl, 300 mM NaCl, 200 mM arginine, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	Pro-neuregulin-1, membrane-bound isoform (NRG1) is a direct ligand of the ERBB3 and ERBB4 tyrosine kinase receptors. Several isomers of NRG1 can induce the growth and differentiation of epithelial cells, glial cells, neuronal cells and skeletal muscle cells. The induced expression of acetylcholine receptors in synaptic vesicles during the formation of neuromuscular junction stimulates the germination and lactation of breast lobular alveoli and induces the differentiation of breast tumor cells. Stimulate Schwann cell proliferation; It affects the development of the heart muscle. NRG1 is also a ligand for integrins
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and binds (via the EGF domain) the integrins ITGAV:ITGB3 or ITGA6:ITGB4. NRG1 can induce the phosphorylation and activation of MAPK3/ERK1, MAPK1/ERK2 and AKT1<sup>[1][2][3][4]</sup>.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA