

## Recombinant Human neuregulin 1 Protein, Tag Free

Cat. No. NRG1-166H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human NRG1 protein (Q02297-6) (Ser 20-Lys 246) without tag was expressed in HEK293.
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	20-246aa
<b>Description</b>	<p>Direct 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. The multiple isoforms perform diverse functions such as inducing growth and differentiation of epithelial, glial, neuronal, and skeletal muscle cells; inducing expression of acetylcholine receptor in synaptic vesicles during the formation of the neuromuscular junction; stimulating lobuloalveolar budding and milk production in the mammary gland and inducing differentiation of mammary tumor cells; stimulating Schwann cell proliferation; implication in the development of the myocardium such as trabeculation of the developing heart. Isoform 10 may play a role in motor and sensory neuron development. Acts as a ligand for integrins and binds (via EGF domain) to integrins ITGAV:ITGB3 or ITGA6:ITGB4. Its binding to integrins and subsequent ternary complex formation with integrins and ERBB3 are essential for NRG1-ERBB signaling. Induces the phosphorylation and activation of MAPK3/ERK1, MAPK1/ERK2 and AKT1.</p>

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Tag</b>	Non
<b>Molecular Mass</b>	25.2 kDa
<b>Endotoxin</b>	Less than 1.0 EU/μg by the LAL method.
<b>Purity</b>	>95% as determined by SDS-PAGE.
<b>Storage</b>	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
<b>Storage Buffer</b>	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
<b>Reconstitution</b>	Reconstitute at 250 μg/mL in sterile water.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	NRG1 neuregulin 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	NRG1
<b>Synonyms</b>	NRG1; neuregulin 1; HGL; pro-neuregulin-1, membrane-bound isoform; GGF; HRG; NDF; MSTP131; pro-NRG1; glial growth factor; neu differentiation factor; neuregulin 1 type IV beta 3; neuregulin 1 type IV beta 1a; sensory and motor neuron derived factor; heregulin, alpha (45kD, ERBB2 p185-activator); ARIA; GGF2; HRG1; HRGA; SMDF; MST131;
<b>Gene ID</b>	3084

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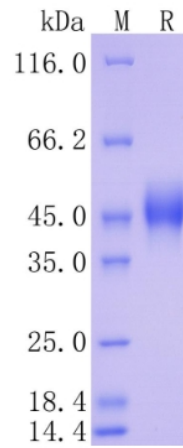
mRNA Refseq [NM\\_001159995](#)

Protein Refseq [NP\\_001153467](#)

MIM [142445](#)

UniProt ID [Q02297](#)

**Protein on SDS-PAGE under reducing (R) condition.**



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