

Recombinant Human Neuregulin 1

Cat. No. NRG1-2675H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human NRG1 is expressed in <i>E. coli</i> .
Species	Human
Source	E.coli
Description	Neuregulin/Heregulin is a family of structurally related polypeptide growth factors derived from alternatively spliced genes (NRG1, NRG2, NRG3 and NRG4). To date, there are over 14 soluble and transmembrane proteins derived from the NRG1 gene. Proteolytic processing of the extracellular domain of the transmembrane NRG1 isoforms release soluble growth factors. HRG1-β1 contains an Ig domain and an EGF-like domain that is necessary for direct binding to receptor tyrosine kinases erb3 and erb4. This binding induces erb3 and erb4 heterodimerization with erb2, stimulating intrinsic kinase activity, which leads to tyrosine phosphorylation.
MW	44kDa (full length) and 30kDa (extracellular domain).
Purity	Over 95% pure by PAGE.
Species Reactivity	Human and Mouse.
Applications	• Western Blotting (As a positive control) • Stimulation of Tyrosine Kinase Activity of Erbs (Protein at 5nM) • Cell Proliferation and Differentiation (Protein at 5nM: dilute 5µg of stock protein to 30ml of culture medium).

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Positive Control	T47-D breast cancer cells.
Formulation	Solution at 0.30 mg/ml in 20% glycerol.
Activity	It may be used on the repair of RNA-polymerase II transcribed genes.
Storage	Store vial at -20°C to -70°C. When stored at the recommended temperature, this protein is stable for 24 months.

GENE INFORMATION

Gene Name	NRG1 neuregulin 1 [Homo sapiens]
Synonyms	neuregulin 1; NRG1; GGF; HGL; HRG; NDF; ARIA; GGF2; HRG1; HRGA; SMDF; pro-neuregulin-1; membrane-bound isoform; pro-NRG1; glial growth factor; neu differentiation factor; sensory and motor neuron derived factor; heregulin, alpha (45kD, ERBB2 p185-activator); pro-NRG1
Gene ID	3084
mRNA Refseq	NM_001159995
Protein Refseq	NP_001153467
MIM	603013
UniProt ID	Q02297
Chromosome Location	8p12

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Pathway	ErbB signaling pathway
Function	cytokine activity; growth factor activity; protein binding; receptor tyrosine kinase binding; transcription cofactor activity; transmembrane receptor protein tyrosine kinase activator activity

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