

Active Recombinant Human NRG1 Protein, His-tagged

Cat. No. NRG1-11129H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human NRG1 Beta 1 Protein, His Tag, premium grade is expressed from human 293 cells (HEK293). It contains AA Ser 177 - Glu 241 (Accession # Q02297-6). This protein carries a polyhistidine tag at the N-terminus.
Species	Human
Source	HEK293
ProteinLength	177-241 aa
Description	NRG1 is one of four proteins in the neuregulin family that act on the EGFR family of receptors. It is known that an extraordinary variety of different isoforms are produced from the NRG1 gene by alternative splicing. These isoforms include heregulins (HRGs), glial growth factors (GGFs) and sensory and motor neuron-derived factor (SMDF). They are tissue-specific and differ significantly in their structure. The HRG isoforms all contain immunoglobulin (Ig) and epidermal growth factor-like (EGF-like) domains. GGF and GGF2 isoforms contain a kringle-like sequence plus Ig and EGF-like domains; and the SMDF isoform shares only the EGF-like domain with other isoforms. The receptors for all NRG1 isoforms are the ERBB family of tyrosine kinase transmembrane receptors. Through their displayed interaction with ERBB receptors, NRG1 isoforms induce the growth and differentiation of epithelial, neuronal, glial, and other types of cells.
Form	Lyophilized from 0.22 µm filtered solution in 50 mM NaAC, 150 mM NaCl, pH5.0 with

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	trehalose as protectant.
Specificity	Host Cell DNA: <0.02 ng/μg of protein tested by qPCR. Sterility: Negative Mycoplasma: Negative
Bio-activity	Immobilized Human NRG1 Beta 1 Protein, His Tag, premium grade at 5 μg/mL (100 μL/well) can bind Biotinylated Human ErbB3, His, Avitag with a linear range of 10-313 ng/mL.
Molecular Mass	The protein has a calculated MW of 9.5 kDa. The protein migrates as 9 kDa under reducing (R) condition, and 9 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) condition (SDS-PAGE).
Endotoxin	Less than 0.1 EU/μg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 24 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name	NRG1 neuregulin 1 [Homo sapiens (human)]
Official Symbol	NRG1

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Synonyms	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;
Gene ID	3084
mRNA Refseq	NM_001159995
Protein Refseq	NP_001153467
MIM	142445
UniProt ID	Q02297

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