

Recombinant Human NRG1, His-tagged

Cat. No. NRG1-27577TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant fragment, corresponding to amino acids 177-237 of Human NRG1 and an additional N terminal Arginine with His tag produced in the endosperm tissue of barley grain ; 62 amino acids , 13 kDa.

Species Human

ProteinLength 177-237 a.a.

Description The protein encoded by this gene was originally identified as a 44-kD glycoprotein that interacts with the NEU/ERBB2 receptor tyrosine kinase to increase its phosphorylation on tyrosine residues. This protein is a signaling protein that mediates cell-cell interactions and plays critical roles in the growth and development of multiple organ systems. It is known that an extraordinary variety of different isoforms are produced from this gene through alternative promoter usage and splicing. These isoforms are tissue-specifically expressed and differ significantly in their structure, and thereby these isoforms are classified into types I, II, III, IV, V and VI. The gene dysregulation has been linked to diseases such as cancer, schizophrenia and bipolar disorder (BPD).

Conjugation HIS

Tissue specificity Type I isoforms are the predominant forms expressed in the endocardium. Isoform alpha is expressed in breast, ovary, testis, prostate, heart, skeletal muscle, lung, placenta liver, kidney, salivary gland, small intestine and brain, but not in uterus, stom

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Biological activity	Bioactivity: Bioactivity is assayed by measuring the dose dependent effect of Human NRG1 on proliferation of MCF7 cells. ED50 is calculated from the effect of serial dilutions on cell proliferation. The ED50 for this batch is 2.9 ng/ml according to this as
Form	Lyophilised: It is recommended to reconstitute the lyophilized protein in sterile phosphate-buffered saline to a concentration of no less than 100 µg/ml. For long term storage of the reconstituted solution it is recommended to add a carrier protein (0.1% H
Storage buffer	Preservative: None Constituents: PBS, pH 7.2
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Sequence Similarities	Belongs to the neuregulin family. Contains 1 EGF-like domain. Contains 1 Ig-like C2-type (immunoglobulin-like) domain.

GENE INFORMATION

Gene Name	NRG1 neuregulin 1 [Homo sapiens]
Official Symbol	NRG1
Synonyms	NRG1; neuregulin 1; HGL; pro-neuregulin-1, membrane-bound isoform; GGF; HRG; NDF;
Gene ID	3084
mRNA Refseq	NM_001159995
Protein Refseq	NP_001153467

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MIM	142445
Uniprot ID	Q02297
Chromosome Location	8p21-p12
Pathway	ErbB signaling pathway, organism-specific biosystem; ErbB signaling pathway, organism-specific biosystem; ErbB signaling pathway, conserved biosystem; Glypican 1 network, organism-specific biosystem; MicroRNAs in cardiomyocyte hypertrophy, organism-specific biosystem;
Function	ErbB-3 class receptor binding; ErbB-3 class receptor binding; cytokine activity; growth factor activity; growth factor activity;

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