NRG-1 (EGF-like domain)

Human, Recombinant (rHuNRG-1)
Expressed in E. coli
Cat. No. CRP0883
Lot. No. (See product label)

PRODUCT INFORMATION

Description: Neuregulin is a signaling protein for ErbB2/ErbB4 receptor heterodimers on the cardiac muscle cells, playing an important role in heart structure and function through inducing ErbB2/ErbB4 receptor phosphorylation and cardiomyocyte differentiation. Research on molecular level discovered that recombinant neuregulin could make disturbed myocardial cell structure into order and strengthen the connection between myocardial cells by intercalated disc re-organization.

Amino-Acid Sequence: 61 aa, non-glycosylated
M. W.: 7,005 Da
Recombinant: Expressed in E. coli
Purity: >96% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2mm filtered solution (0.25mg/ml) in 20mM PB, pH 7.0, containing 0.5%HAS and 2% mannitol.

Biological Activity: Fully biologically active when compared to standard. The activity measured by its ability to stimulate the proliferation of human MCF-7 cells grown under serum-free conditions corresponding to a specific activity of 1.2 x 10^4 Units/mg.

Endotoxin: Less than 1EU/mg of rHuNRG-1 as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name: NRG1
Synonyms: GGF; HGL; HRG; NDF; ARIA;GGF2; HRG1; HRGA; SMDF; Neuregulin-1, sensory and motor neuron-derived factor isoform; Pro-neuregulin-1, membrane-bound isoform precursor; neu differentiation factor; neuregulin 1; sensory and motor neuron derived factor; Pro-NRG1; glial growth factor; heregulin, alpha (45kD, ERBB2 p185-activator)
mRNA Refseq: NM_004495
Protein Refseq: NP_004486
MIM: 142445
GenelD: 3084
Uniprot ID: Q15491
Chromosome Location: 8p12
Pathway: ErbB signaling pathway

REFERENCES