

GRF-10807 Human NRG1

Size: 50 ug

Synonyms: Neuregulin-1, NRG1, GGF, HGL, HRGA, NDF, SMDF, HRG, ARIA, GGF2, HRG1.

Introduction: 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 neuregulin recombinant could make disturbed myocardial cell structure into order and strengthen the connection between myocardial cells by intercalated discs re-organization. Pharmacodynamic experiments in animals showed that neuregulin (NRG1) recombinant can reduce the degree of damage on myocardial cells caused by

ischemia, hypoxia and viral infection.

Description: Recombinant Human Neuregulin-1 beta 2 produced in E.Coli is a single, non-

glycosylated, polypeptide chain containing 61 amino acids and having a total molecular mass of 7055 Dalton.NRG-1 is purified by proprietary chromatographic

techniques.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2µm filtered solution in PBS, pH 7.4.

Solubility: It is recommended to reconstitute the lyophilized NRG1 in sterile 18MΩ-cm H2O not

less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized NRG1 although stable at room temperature for 3 weeks, should be

stored desiccated below -18°C. Upon reconstitution Heregulin should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw

cycles.

Purity: Greater than 96.0% as determined by:

(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

Amino acid sequence: SHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASFYKAEELYQ

Biological Activity: The ED50 as determined by a cell proliferation assay using serum free human

MCF-7 cells is less than 50ng/ml, corresponding to a specific activity of > 2.0 × 10⁴

IU/mg.

Usage: The product may not be used as drugs, agricultural or pesticidal products, food

additives or household chemicals.