



## User Manual

**Neuregulin-1beta2 EGF-I domain ike (NRG-1 $\beta$ 2) (Human)**

**Cat. No. HEOPP-14042**

**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 discs re-organization.

**Source:**

*Escherichia coli*

**Unit:**

50 µg

**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.

**Formulation:**

Lyophilized from a 0.2 µm filtered solution in 20 mM PB, pH 7.0, containing 0.5% HAS and 2% mannitol.

**Storage:**

This lyophilized preparation is stable 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.

**Molecular Weight:**

Approximately 7.0 kDa, a single non-glycosylated polypeptide chain containing 61 amino acids.

**Endotoxin:**

Less than 1 EU/ $\mu$ g of NRG-1/HRG1- $\beta$ as determined by LAL method.

**Usage:**

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

**Biological Activity:**

The ED50 determined by a cell proliferation assay using serum free human MCF-7 cells is less than 83 ng/mL, corresponding to a specific activity of  $> 1.2 \times 10^4$  IU/mg.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

SHLVKCAEKE KTFCVNGGEC FMVKDLSNPS RYLCKCPNEF TGDRQCQNYVM  
ASFYKAEELY Q

**Purity:**

$> 96\%$  by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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