

Recombinant Human Heregulin-B2 (NRG1 Human)

Source: E.Coli

Catalog No.: CYT-407

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.

Synonyms:

Growth Differentiation Factor 15, GDF-15, Neu Differentiation Factor, PDF, MIC1, PLAB, MIC-1, NAG-1, HRG-2b, NRG1, Placental bone morphogenetic protein, Placental TGF-beta, Macrophage inhibitory cytokine 1, Prostate differentiation factor, NSAID-regulated protein 1.

Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

Formulation:

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

Solubility:

It is recommended to reconstitute the lyophilized GDF15 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:

Lyophilized MIC1 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 avoid freeze-thaw cycles.

Purity:

Greater than 96.0% as determined by:

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

Amino acid sequence:

SHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASFYKAEELYQ

Biological Activity:

The ED50, calculated by the dose-dependant stimulation of human MCF-7 cells is < 0.5ng/ml, corresponding to a specific activity of > 2 x 10⁶ units/mg.

Usage:

Product is furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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