

Product: Heregulin-β2 (Neuregulin-1), human, recombinant
Catalog #: 11-NRG-1H
Amount: 20 µg

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. Pharmacodynamic experiments in animals showed that recombinant neuregulin (NRG1) can reduce the degree of damage on myocardial cells caused by ischemia, hypoxia and viral infection.

Recombinant Human Heregulin-β1 also called Neuroregulin-1 (Neu differentiation factor) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 61 amino acids and having a total molecular mass of 7055Dalton. rHuNRG1 is purified by proprietary chromatographic techniques.

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

Amino acid sequence:

SHLVKCAEKE KTFVCVNGGEC FMVKDLSNPS RYLCKCPNEF
TGDRQCQNYVM ASFYKAEELY Q

SOURCE:

Escherichia coli

PURITY:

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC

DIMERS & AGGREGATES:

<1% as determined by silver stained SDS-PAGE gel analysis

ENDOTOXIN:

Less than 0.1 ng/µg (IEU/µg) of rHuNRG1

PROTEIN CONTENT:

Protein quantitation was carried out by two independent methods:

1) UV spectroscopy at 280 nm.

2) Analysis by RP-HPLC, using a standard solution of NRG1 as a Reference

Standard.

FORM:

Purified

STORAGE:

-20°C, avoid freezing and thawing cycles after reconstitution

BIOLOGICAL ACTIVITY:

rHuNRG1 is fully biologically active when compared to standard.

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

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