Heregulinbeta-1 Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Neuregulin1 (NRG1-?1), Neu differentiation factor (rat)

Cat. No.:

RBG10176010	(10 µg)
RBG10176050	(50 µg)
RBG10176100	(100 µg)

Description

Neuregulin/Heregulin is a family of structurally related polypeptide growth factors derived from alternatively spliced genes (NRG1, NRG2, NRG3 and NRG4). To date, there are over 14 soluble and transmembrane proteins derived from the NRG1 gene. Proteolytic processing of the extracellular domain of the transmembrane NRG1 isoforms releases soluble growth factors. HRG1-beta1 contains an Ig domain and an EGF-like domain; the latter is necessary for direct binding to receptor tyrosine kinases erb3 and erb4. This binding induces erb3 and erb4 heterodimerization with erb2, stimulating intrinsic kinase activity that leads to tyrosine phosphorylation. Although HRG1-beta1's biological effects are still unclear, it has been found to promote motility and invasiveness of breast cancer cells, which may also involve up-regulation of expression and function of the autocrine motility-promoting factor (AMF). Recombinant Human Heregulinbeta-1 (HRG1-B1) is a 7.5 kDa polypeptide consisting of only the EGF domain of heregulinbeta-1 (65 amino acid residues).

Research topic

Apoptosis, Cardiovascular disease, Coronary artery disease, Oncology

Amino Acid Sequence

SHLVKCAEKE KTFCVNGGEC FMVKDLSNPS RYLCKCPNEF TGDRCQNYVM ASFYKHLGIE FMEAE

Source

E. coli

Purity

98%

Biological Activity

The ED_{50} was determined by the dose-dependent stimulation of the proliferation of human MCF-7 cells is ? 0.5 ng/ml, corresponding to a specific activity of ? 2×10^{6} units/mg.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C

Storage, Stability/Shelf Life

-20°C

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