

## 32-20289: Animal-Free Recombinant Human Heregulin Beta-1(Discontinued)

**Reactivity :** Human , Mouse, Rat

**Alternative Name :** Neuregulin1 (NRG1- Beta1), Neu differentiation factor (rat), HRG, HRG1- Beta1, Breast cancer cell differentiation factor p45, ARIA (Acetylcholine Receptor Inducing Activity), glial growth factor

### Description

**Source:** **E.coli** 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 Heregulin Beta-1 (HRG1-B1) is a 7.5 kDa polypeptide consisting of only the EGF domain of heregulin Beta-1 (65 amino acid residues).

### Product Info

**Amount :** 10 µg / 50 µg

**Purification :** Purity:  $\geq 98\%$  by SDS-PAGE gel and HPLC analyses.

**Content :** This recombinant protein is supplied in lyophilized form.

**Amino Acid :** SHLVKCAEKE KTFCVNGGEC FMVKDLSNPS RYLCKCPNEF TGDRCQNYVM ASFYKHLGIE FMEAE

### Application Note

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