BioVision

rev. 01/06

Recombinant Human Heregulin-β1 (HRG1-β)

CATALOG #: 4711-50 50 μg
4711-1000 1 mg

LOT #: _____

SOURCE: *E. coli*

PURITY: >98% by SDS-PAGE and HPLC analysis
Endotoxin level is <0.1 ng per μg of Heregulin-β1.

MOL. WEIGHT: 7.5 kDa

FORMULATION: Lyophilized from 20 mM phosphate buffer, pH 7.0, containing 0.5% HSA and 2% mannitol.

RECONSTITUTION:
Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 μg/μl. The solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or –20°C for future use.

STORAGE CONDITIONS:
The lyophilized protein is best-stored desiccated below 0°C. Reconstituted protein should be stored at working aliquots at -20°C. For long term storage it is recommended to add a carrier protein (0.1% HAS or BSA). Avoid freeze/thaw cycles.

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 release soluble growth factors. HRG1-β1 contains an Ig domain and an EGF-like domain that 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, which leads to tyrosine phosphorylation. Although HRG1-β1 biological effects is 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-β1 (HRG1-β1) is a 7.5 kDa polypeptide consisting of only the EGF domain of heregulin-β1 (65 amino acid residues).

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.

USAGE: For Research Use Only. Not to be used in humans.

BioVision Research Products
980 Linda vista Avenue, Mountain View, CA 94043 USA

For research use only

FEATURED PRODUCTS:

Apoptosis Detection Kits & Reagents
- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptotic Cell Isolation Kit

Cell Fractionation System
- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence
- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

Cell Damage & Repair
- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction
- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

Adipocyte & Lipid Transfer
- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay Kit
- Total Cholesterol Quantification Kit

Molecular Biology & Reporter Assays
- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- β-Galactosidase Staining Kit & Luciferase Reporter Assay Kit

Growth Factors and Cytokines

Quality Antibodies for Apoptosis and Signal Transduction Molecules

Tel: 650-428-0236 • Fax: 650-428-0336
www.biovision.com • tech@biovision.com