

Recombinant Human Neuregulin 1-beta2 EGF-like Domain

#R00166

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Neuregulin 1 belongs to a family of structurally related polypeptide growth factors and is produced in numerous isoforms by alternative splicing, which allows it to perform a wide variety of functions. These isoforms include heregulins (HRGs), glial growth factors (GGFs) and sensory and motor neuron-derived factor (SMDF). They all have the Ig and EGF-like domain, and can bind to ErbB3 and ErbB4 receptor tyrosin kinases. This binding induces ErbB3 and ErbB4 heterodimerization with ErbB2, stimulating intrinsic kinase activity, which leads to tyrosine phosphorylation. NRG1 isoforms have functions of inducing the growth and differentiation of epithelial, neuronal, glial, and other types of cells.

AA Sequence

SHLVKCAEKEKTCVNGGECFMVKDLSNPSRYLCKC
PNEFTGDRCQNYVMASFYKAEELYQ

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Heregulin-beta1, HRG1
Accession	Q02297
GeneID	3084
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 7.0 kDa, a single non-glycosylated polypeptide chain containing 61 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using serum free human MCF-7 cells is less than 5 ng/ml, corresponding to a specific activity of > 2.0 × 10 ⁵ U/mg.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/μg of rHuNRG1-β2 as determined by LAL method.