

## Human recombinant Heregulin Beta 1 protein, AF

Catalog Number: PROTQ02297-3

### Overview

Product Name	Human recombinant Heregulin Beta 1 protein, AF
Description	Neuregulin-1 (NRG-1, also called heuregulin1 or neu differentiation factor) is a glycoprotein that belongs to the neuregulins family. Structurally, Neuregulin-1 harbors tissue-specific N terminal sequence, followed by immunoglobulin-like (Ig-like) domains, an EGF-like domain, a transmembrane domain, and a cytoplasmic domain. NRG1 has multiple isoforms produced by alternative splicing. Heregulin- beta1 (HRG- beta1) is one of the isoforms, has been reported to engage the development and survival of cardiomyocytes derived from embryonic stem (ES) cells via activating MAPK-ERK and PI3K-AKT pathways. Moreover, HRG- beta1 plays a central role in promoting the proliferation of neuronal progenitors from embryonic neural stem cells.
Size	5ug,20ug,100ug
Tag	His Tag (C-term)
Form	Lyophilized
Source	Escherichia coli
Formulation	The protein was lyophilized from a 0.2 um filtered solution containing 1X PBS, pH 7.4. If you have any concerns or special requirements, please confirm with us.

### Storage

Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.

### Purity

>95% as determined by SDS-PAGE.

### Molecular weight

The protein has a calculated MW of 8.42 kDa. The protein migrates as 8 kDa under reducing condition (SDS-PAGE analysis).

### Activity

Measure by its ability to induce MCF-7 cells proliferation. The ED<sub>50</sub> for this effect is < 10 ng/mL.

### Endotoxin

<1 EU per 1 ug of the protein by the LAL method.

### **Amino Acid Sequence**

A DNA sequence encoding Human Heregulin Beta 1 Protein (#Q02297-6)(Ser177-Glu241) was expressed with polyhistidine tag at the C-terminus.

### **Reconstitution**

Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 100 ug/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex!

Vigorous shaking may impair the biological activity of the protein.

## Usage

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