

## Product datasheet for **TP728222L**

### Recombinant Heregulin Beta 1, Human

#### Product data:

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant Heregulin Beta 1, Human
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	A DNA sequence encoding Human Heregulin Beta 1 Protein (#Q02297-6)(Ser177-Glu241) was expressed with polyhistidine tag at the C-terminus.
<b>Tag:</b>	His Tag (C-term)
<b>Predicted MW:</b>	The protein has a calculated MW of 8.42 kDa. The protein migrates as 8 kDa under reducing condition (SDS-PAGE analysis).
<b>Purity:</b>	>95% as determined by SDS-PAGE.
<b>Buffer:</b>	The protein was lyophilized from a 0.2 µm filtered solution containing 1X PBS, pH 7.4.
<b>Bioactivity:</b>	Measure by its ability to induce MCF-7 cells proliferation. The ED <sub>50</sub> for this effect is < 10 ng/mL.
<b>Endotoxin:</b>	<1 EU per 1 µg of the protein by the LAL method.
<b>Reconstitution Method:</b>	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 µg/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.
<b>Applications:</b>	Cell culture
<b>Storage:</b>	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.
<b>UniProt ID:</b>	<a href="#">Q02297-6</a>
<b>Synonyms:</b>	NRG1 Beta 1, Heregulin-β1



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**Summary:**

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-  $\beta$ 1 (HRG-  $\beta$ 1) 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-  $\beta$ 1 plays a central role in promoting the proliferation of neuronal progenitors from embryonic neural stem cells.