

## Product datasheet for **TP728279M**

### Recombinant NRG1, Human

#### Product data:

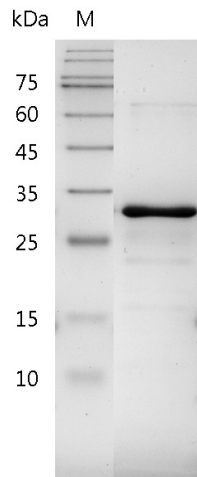
<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant NRG1, Human
<b>Species:</b>	Human
<b>Expression Host:</b>	E. coli
<b>Expression cDNA Clone or AA Sequence:</b>	A DNA sequence encoding Human NRG1 Protein (#Q02297)(Ser20-Lys241) was expressed.
<b>Tag:</b>	Tag Free
<b>Predicted MW:</b>	The protein has a calculated MW of 24.29 kDa. The protein migrates as 28-30 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>	Testing in process
<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</a>
<b>Synonyms:</b>	Acetylcholine receptor-inducing activity (ARIA), Breast cancer cell differentiation factor p45, Glial growth factor, Heregulin (HRG), Neu differentiation factor, Sensory and motor neuron-derived factor



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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. Neuregulin-1 exerts its actions upon engagement of its EGF-like domain to the extracellular binding region of HER RTK family members (EGFR, HER2, HER3, and HER4), subsequently leading to receptor dimerization which activates a variety of signal pathways such as MAPK-ERK and PI3K-AKT pathways. These signal cascades are essential for regulating cardiac development, neuronal differentiation, neuromuscular synapses formation, and stem cell proliferation.

**Product images:**

SDS- PAGE analysis of recombinant human NRG1