

# Human NRG1 Protein, Tag Free, E. coli

**Catalog Number** LDG178PHE **Package** 100 μg

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## **Specifications**

**Species of Origin** 

Human

**Affinity Tag** 

Tag Free

**Purity** 

>95% as determined by SDS-PAGE analysis.

**Endotoxin Level** 

<1 EU per 1  $\mu g$  of the protein by the LAL method.

**Expression System** 

Escherichia coli

**Storage Buffer** 

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Molecular weight

The protein has a calculated MW of 24.29 kDa. The protein migrates as 28-30 kDa under reducing condition (SDS-PAGE analysis).

**Form** 

Lyophilized

# **Background**



### **Background**

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 (Iglike) 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.

### **Synonyms**

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

#### **Uniprot ID**

#Q02297

#### **Sequence Note**

Ser20-Lys241

### Instruction

#### Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 200 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient redissolved.

#### Shipping

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.



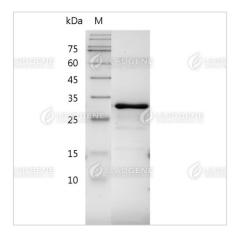
## **Stability & Storage**

This product is stable after storage at:

- -20°C for 12 months in lyophilized state from date of receipt.
- -20°C or -80°C for 1 month under sterile conditions after reconstitution.

Avoid repeated freeze/thaw cycles.

# **Image**



SDS-PAGE analysis of human NRG1 protein.

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