

Recombinant Human Pro-Neuregulin-1/NGR1-β1 Protein (aa 2-246)

Catalog No. PKSH032939

Note: Centrifuge before opening to ensure complete recovery of vial contents.

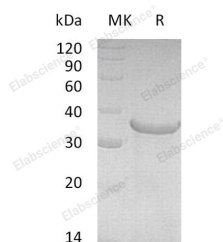
Description

Synonyms	Pro-neuregulin-1;Neuregulin-1 beta 1;NRG1-beta 1;HRG1-beta 1;EGF;NRG1;GGF;HGL;HRGA;NDF;SMDF;
Species	Human
Expression Host	E.coli
Sequence	Ser2-Lys246
Accession	AAA58639.1
Calculated Molecular Weight	26.9 kDa
Observed molecular weight	34 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.01 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Pro-neuregulin-1;Neuregulin-1 beta 1 (NRG1) is a single-pass type I membrane protein and belongs to the neuregulin

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family .It contains 1 EGF-like domain and 1 Ig-like C2-type (immunoglobulin-like) domain. Direct ligand for ERBB3 and ERBB4 tyrosine kinase receptors. The protein concomitantly recruits ERBB1 and ERBB2 coreceptors; resulting in ligand-stimulated tyrosine phosphorylation and activation of the ERBB receptors. The multiple isoforms perform diverse functions such as inducing growth and differentiation of epithelial; glial; neuronal; and skeletal muscle cells; inducing expression of acetylcholine receptor in synaptic vesicles during the formation of the neuromuscular junction; stimulating lobuloalveolar budding and milk production in the mammary gland and inducing differentiation of mammary tumor cells; stimulating Schwann cell proliferation; implication in the development of the myocardium such as trabeculation of the developing heart. Isoform 10 may play a role in motor and sensory neuron development.