Recombinant Human NRG1-beta 1/HRG1-beta 1 EGF Domain, Tag Free

Information

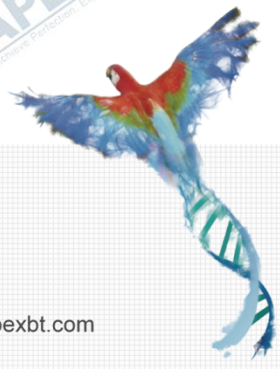
Gene ID	3084
Accession #	Q02297
Alternate Names	Neuregulin1 beta 1
Source	E.coli
Protein sequence	MTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASFYKHLG IEFMEAEELYQK
Tag	Tag free
M.Wt	The protein has a calculated MW of 8.37 KDa.
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 36 months from date of receipt, -20 to -70°C as supplied
Concentration	1 mg/mL
Formulation	Supplied as a 0.2 μm filtered solution in PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Thi s solution can be diluted into other aqueous buffers.
Biological Activity	Testing in progress.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

Purity	> 95 % by SDS-PAGE.
Endotoxin	Less than 1.0 EU/μg as determined by LAL method.

Description

Human Pro-neuregulin-1, membrane-bound isoform (abbreviated as NRG1) is a single-pass type I membrane protein precursor encoded by the NRG1 gene, which can generate at least 11 isoforms through alternative splicing. Due to its diverse functions, it has multiple aliases, including acetylcholine receptor-inducing activity (ARIA), glial growth factor (GGF), heregulin (HRG), and neu differentiation factor (NDF). This precursor protein contains an Ig-like C2-type domain and an EGF-like domain, and is proteolytically processed to produce active neuregulin-1. As a direct ligand for the ERBB3 and ERBB4 tyrosine kinase receptors, the core function of neuregulin-1 is to recruit ERBB1/ERBB2 co-receptors and activate downstream MAPK and AKT signaling pathways, thereby inducing the growth and differentiation of various cell types including epithelial cells, neuronal cells, and muscle cells, as well as promoting cardiac trabeculation and the expression of acetylcholine receptors at the neuromuscular junction. Based on these functions, this recombinant protein is widely used in research fields such as nervous system development, cardiovascular biology, and the tumor microenvironment.



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