
Product Data Sheet

Product Name: NRG1 Human, SF9

Cat. No.: GP26062

Batch No.: 1

Product Data

Purity	>98%	Source	Sf9, Baculovirus cells.
Physical Appearance	solid	Shipping Condition	withIcePacks
Synonyms	Neuregulin-1, NRG1, GGF, HGL, HRGA, NDF, SMDF, HRG, ARIA, GGF2, HRG1		
Amino Acid Sequence	ADPSGKKPES AAGSQSPALP PRLKEMKSQE SAAGSKLVLR CETSSEYSSL RFKWFKNGNE LNRKNKPQNI KIQKKPGKSE LRINKASLAD SGEYMCKVIS KLGNDASAN ITIVESNEII TGMPASTEGA YVSSESPIRI SVSTEGANTS SSTSTSTTGT SHLVKCAEKE KTFCVNGGEC FMVKDLSNPS RYLCKCPNEF TGDRCONYVM ASFYSTSTPF LSLPEHHHHH H		
Formulation	The NRG1 solution (0.5mg/ml) contains 10% Glycerol and Phosphate-Buffered Saline (pH 7.4).		

Introduction

Neuregulin/Heregulin is a family of structurally related polypeptide growth factors which are stemmed from alternatively spliced genes (NRG1, NRG2, NRG3 and NRG4). There are more than 14 soluble and transmembrane proteins derived from the NRG1 gene. Proteolytic processing of the extracellular domain of the transmembrane NRG1 isoforms release soluble growth factors. These isoforms contain the heregulins (HRGs), glial growth factors (GGFs) and sensory and motor neuron-derived factor (SMDF). All these factors have the Ig and EGF-like domain, and are able to bind to ErbB3 and ErbB4 receptor tyrosin kinases. This binding stimulates erb3 and erb4 heterodimerization with erb2, promoting intrinsic kinase activity, which results in tyrosine phosphorylation. NRG1 isoforms induce the growth and differentiation of epithelial, neuronal, glial, and other types of cells.

Biological Activity

Determined by cell proliferation assay MCF7 human breast cancer cell. ED50 range for

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this effect is ≤ 15 ng/ml/

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

NRG1 Human produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 231 amino acids (20-241 aa) and having a molecular mass of 25.1kDa. NRG1 is fused to a 6 amino acid His tag at C-terminus and purified by proprietary chromatographic techniques.

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