

Recombinant human NRG1/HRG1 protein

Catalog Number: ATGP3990

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

20-241aa

UniProt No.

Q02297

NCBI Accession No.

NP_039252

Alternative Names

NRG1, ARIA, GGF2, GGF, GGFglial growth factor, HGL, HGLneu differentiation factor, HRG, HRG1, HRGA, NRG-IT2, NRG1-IT2, HRG1-alpha, HRG1-beta 1, HRGAneregulin 1 type IV beta 1a, Heregulin-1, MST131, MSTP131, NDFheregulin, alpha (45kD, ERBB2 p185-activator), Neuregulin-1, Neuregulin1, SMDF, neuregulin 1, neuregulin 1 type IV beta 3, pro-NRG1, pro-neuregulin-1, membrane-bound isoform, sensory and motor neuron derived factor

PRODUCT SPECIFICATION

Molecular Weight

25.1kDa(231aa)

Concentration

0.5mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS - PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a cell proliferation assay using MCF7 human breast cancer cell. The ED50 range $\leq$ 15 ng/ml.

Tag

His-Tag

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Neuregulin-1 (NRG1), also known as ARIA, is one of four proteins in the neuregulin family that act on the EGFR family of receptors. It has multiple isoforms that are generated by usage of different promoters and alternative splicing of a single gene. This protein regulates multiple nervous system functions including axon guidance, synapse formation and plasticity, glial cell development, and axon myelination. In the heart, it regulates organ morphogenesis and contractility and also plays a cardioprotective role following tissue injury. NRG1 is essential for the development and function of multiple organ systems, and its dysregulation has been linked to diseases such as cancer and schizophrenia. Recombinant human NRG1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

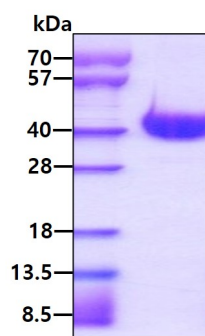
<ADP>SGKKPES AAGSQSPALP PRLKEMKSQE SAAGSKLVLR CETSSEYSSL RFWFKNGNE LNRKNKPQNI KIQKKPGKSE LRINKASLAD SGEYMCKVIS KLGNDASAN ITIVESNEII TGMPASTE GA YVSESPIRI SVSTEGANTS SSTSTTTGT SHLVKCAEKE KTFCVNGGEC FMVKDLSNPS RYLCKCPNEF TGDRQCNYVM ASFYSTSTPF LSLPE<HHHHH H>

General References

Tan W, et al. (2007). J Biol Chem. 282:24343-24351.
Nicodemus KK, et al. (2010). Arch Gen Psychiatry. 67:991-1001.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity

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Human Proinsulin in a cell proliferation assay using MCF7 human breast cancer cell. The ED50 range ≤ 15 ng/ml.

