

Human Neuregulin-1 protein, His tag (active)

Cat. No. GTX00417-pro

Applications Functional Assay**Species** Human**Package**

10 µg

Applications

Application Note

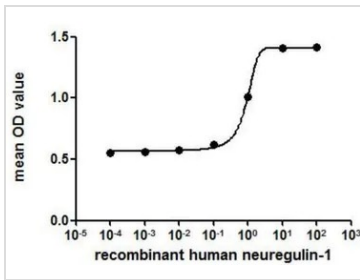
NRG1 (neuregulin-1) is a membrane glycoprotein that belongs to the neuregulin family and act on the EGFR family of receptors. It mediates cell-cell signaling and plays a critical role in the growth and development of multiple organ systems. It is reported that by binding to HER3 receptor, NRG1 mediates downstream signaling pathways, leading to multiple effects including growth, proliferation, decreased apoptosis, cellular migration and angiogenesis. Thus, proliferation assay of NRG1 was conducted using MCF-7 cells. Briefly, MCF-7 cells were seeded into triplicate wells of 96-well plates at a density of 2000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of NRG1. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). 10 µl of CCK-8 solution was added to each well of the plate, the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. The dose-effect curve of NRG1 showed it significantly promoted cell proliferation of MCF-7 cells, and the ED₅₀ for this effect is typically 5.240 to 9.112 ng/ml.

Observed MW (kDa) 27 kDa.

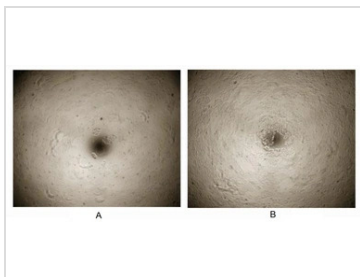
Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris (pH8.0) and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris (pH8.0), 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Glu20~His242 (NP_001153467.1)**Expression System** E. coli**Purity** > 98%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

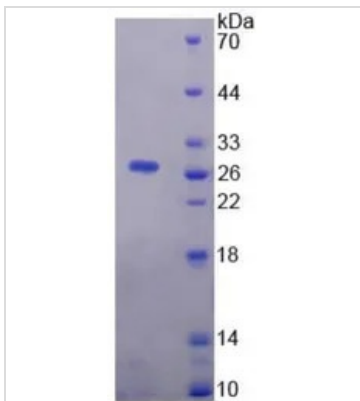
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DATA IMAGES

GTX00417-pro Functional Assay Image

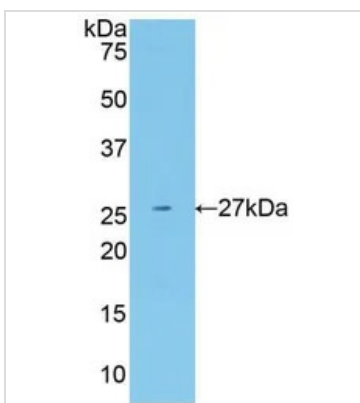
Cell proliferation effect of GTX00417-pro Human Neuregulin-1 protein (active) on MCF-7 cells. After incubation of Human Neuregulin-1 protein (active) for 72 hrs, cell proliferation was measured by Cell Counting Kit-8 (CCK-8). The ED50 for this effect is typically 5.240 to 9.112 ng/ml.


GTX00417-pro Functional Assay Image

Cell proliferation effect of GTX00417-pro Human Neuregulin-1 protein (active).
 (A) Unstimulated MCF-7 cells cultured in DMEM for 72hrs.
 (B) MCF-7 cells cultured in DMEM, stimulated with 10 ng/ml NRG1 for 72hrs.


GTX00417-pro Image

SDS-PAGE analysis of GTX00417-pro Human Neuregulin-1 protein (active).


GTX00417-pro Image

WB analysis of GTX00417-pro Human Neuregulin-1 protein (active).



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