

Human NEGR1 Protein (His Tag)

Catalog Number: 11181-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DMML2433; IGLON4; KILON; Ntra

Protein Construction:

A DNA sequence encoding the human NEGR1 (NP_776169.2) (Met 1-Gly 324) without the propeptide was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Val 38

Molecular Mass:

The secreted mature form of recombinant human NEGR1 consists of 298 amino acids and predicts a molecular mass of 32.9 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh NEGR1 is approximately 45-48 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

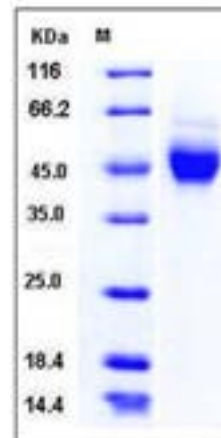
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Neuronal Growth Regulator 1, NEGR1, also known as neurotractin, or KILON, which belongs to the immunoglobulin superfamily, IgLON family. This GPI-linked cell surface glycoprotein NEGR1 is composed of three Ig-like domains and belongs to the IgLON subgroup of neural IgSF members. It is expressed in two isoforms with apparent molecular masses of 50 and 37 kD, termed L-form and S-form, respectively. NEGR1/Neurotractin participates in the regulation of neurite outgrowth in the developing brain, and is expressed on neurites of primary hippocampal neurons. Neurotractin/KILON is a trans-neural growth-promoting factor for outgrowing axons following hippocampal denervation. KILON (kindred of IgLON) and opioid-binding cell adhesion molecule belong to the IgLON subgroup of immunoglobulin superfamily together with the limbic system-associated membrane protein and neurotrimin. The alteration of modulatory function of KILON/NEGR1 for the number of dendritic synapses concomitant with changes in its localization and detergent solubility during neuronal culture development. In addition to its reported role in the brain, NEGR1 is also expressed in subcutaneous adipose tissue and acts as a central 'hub' in an obesity-related transcript network.

References

1. Marg A, *et al.* (1999) Neurotractin, a novel neurite outgrowth-promoting Ig-like protein that interacts with CEPU-1 and LAMP. *J Cell Biol.* 145(4): 865-76.
2. Miyata S, *et al.* (2003) Biochemical and ultrastructural analyses of IgLON cell adhesion molecules, Kilon and OBCAM in the rat brain. *Neuroscience.* 117(3): 645-58.
3. Schfer M, *et al.* (2005) Neurotractin/kilon promotes neurite outgrowth and is expressed on reactive astrocytes after entorhinal cortex lesion. *Mol Cell Neurosci.* 29(4): 580-90.

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