A Reliable Research Partner in Life Science and Medicine

Recombinant Mouse NGFR/CD271 Protein (Fc Tag)

Catalog Number: PKSM040411

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Species Mouse

Source HEK293 Cells-derived Mouse NGFR/CD271 protein Met 1-Asn 243, with an C-terminal

hFc

Calculated MW50.6 kDaObserved MW70-80 kDaAccessionQ9Z0W1

Bio-activity Measured by its ability to inhibit NGF-dependent proliferation of TF-1 human

erythroleukemic cells. The ED_{50} for this effect is typically 0.5-3 $\mu g/mL$ in the presence

of 2 ng/mL Recombinant mouse NGF.

Properties

Purity > 90 % as determined by reducing SDS-PAGE.

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

Storage Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80

°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

Shipping This product is provided as lyophilized powder which is shipped with ice packs.

Formulation Lyophilized from sterile PBS, pH 7.4

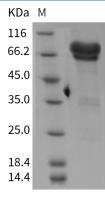
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

Reconstitution Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Elabscience®

Elabscience Bionovation Inc.

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Nerve growth factor receptors (NGFRs) belong to a large growth factor receptor family. NGFR includes two types of receptors: high-affinity nerve growth factor receptor and low-affinity nerve growth factor receptor. High-affinity nerve growth factor receptor is also referred as Trk familywhose members are bound by some neurotrophins with high affinity. Nerve growth factor binds with TrkA after being released from target cells, the NGF / TrkA complex is subsequently trafficked back to the cell body. The Low-affinity nerve growth factor receptor also named p75 which binds with all kinds of neurotrophins with low affinity. All the four kinds of neurotrophins, including Nerve growth factor, Brain derived neurotrophic factor, Neurotrophin-3, and Neurotrophin-4 bind to the p75. Studies have proved that NGFR acts as a molecular signal swith that determines cell death or survival by three steps. First, pro-nerve growth factor (prNGF) triggers cell apoptosis by its high affinity binding to p75NTR, while NGF induces neuronal survival with low-affinity binding. Second, p75NTR mediates cell death by combining with co-receptor sortilin, whereas it promotes neuronal survival through combination with proNGF. Third, release of the intracellular domain chopper or cleavage short p75 NTR can independently initiate neuronal apoptosis.

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