Ngfr
Recombinant Mouse NGF Receptor / CD271 (Fc Tag)

Catalog No.	CRM716A-Fc CRM716B-Fc	**Quantity:**	50 µg 100 µg

Alternate Names: Tumor necrosis factor receptor superfamily member 16, Low affinity neurotrophin receptor p75NTR1, Low-affinity nerve growth factor receptor, NGF receptor, CD271

Description: 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 family whose 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 switch 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.

UniProt ID: Q9Z0W1

Protein Construction: A DNA sequence encoding the extracellular domain of mouse NGFR (Met 1-Asn 243) was fused with the Fc region of human IgG1 at the C-terminus.

Source: HEK293 Cells

Formulation: Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Weight: The secreted rm NGFR/Fc is a disulfide-linked homodimer. The reduced monomer consists of 463 aa with a predicted MW of 50.6 kDa and migrates at ~70-80 kDa in SDS-PAGE under reducing conditions, due to glycosylation.

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

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

Biological Activity: Measured by its ability to inhibit NGF-dependent proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is typically 0.5-3 µg/mL in the presence of 2 ng/mL recombinant mouse NGF.

Predicted N-terminal: Lys 22

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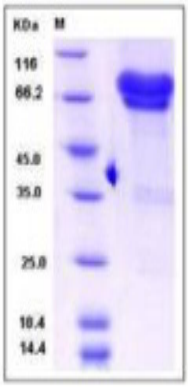
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

SDS-PAGE



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