Recombinant Human NGFR, 222aa, Fc Chimera

Cat. No. NGFR-453H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinat human Nerve growth factor receptor was fused to the Fc region of human IgG1 (aa 93-330). It was expressed in modified*human 293 cells*.
Species	Human
Source	HEK293
Description	Nerve growth factor receptor (NGFR), also known as p75NTR or CD271 antigen, is a low affinity NGF receptor primarily responsible for modulating the affinity and activity of tyrosine kinases that promote neuronal survival. Ligand binding by neurotrophins, including beta NGF, brain derived neurotrophic factor (BDNF), neurotrophin-3 (NT3) and neurotrophin-5 (NT4/5), to the NGF R can promote either survival or apoptosis of neurons. NGF receptors such as TrkA, B and C, can associate with NGF R to stimulate higher affinity ligand binding, although on its own NGF R binds to all neutrophins within equal affinity. Neurotrophin-NGFR signaling mediates conditions such as pain, depression, obesity, nerve regeneration disorders, learning and memory. Additionally, NGF R is thought to play a role in neuronal death that occurs in disorders of the CNS such as Alzheimer's disease.
Molecular Mass	NGFR(222aa) - Fc Chimera migrates as a broad band between 75 and 100 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. This compares with unmodified NGFR(222aa) – Fc Chimera that has a predicted molecular mass of 50.8 kDa.

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pI	NGFR(222aa) - Fc Chimera separates into a number of isoforms with a pI between 4.0 and 6.0 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified NGFR(222aa) – Fc Chimera that has a predicted pI of 4.89.
% Carbohydrate	NGFR (222aa) - Fc Chimera consists of 30-50% carbohydrate by weight.
Glycosylation	NGFR (222aa) - Fc Chimera contains N-linked and O-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C.

GENE INFORMATION

Gene Name	NGFR nerve growth factor receptor (TNFR superfamily, member 16) [Homo sapiens]
Synonyms	nerve growth factor receptor (TNFR superfamily, member 16); CD271; p75NTR; TNFRSF16; p75(NTR); Gp80-LNGFR; NGFR; nerve growth factor receptor; low affinity nerve growth factor receptor; low-affinity nerve growth factor receptor; CD271 antigen; Low affinity neurotrophin receptor p75NTR; Low-affinity nerve growth factor receptor; NGF receptor; p75 ICD
Gene ID	4804

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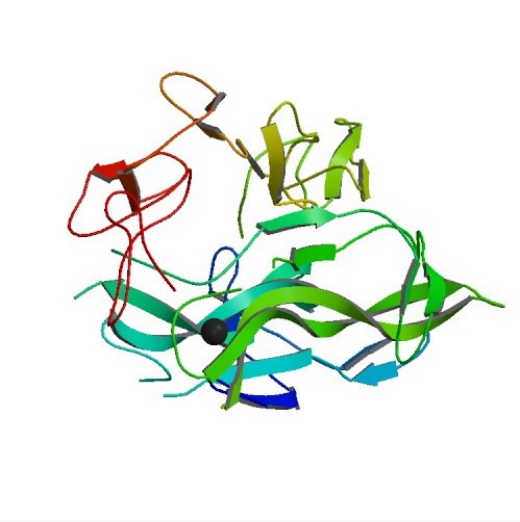
mRNA Refseq	NM_002507
Protein Refseq	NP_002498
MIM	162010
UniProt ID	P08138
Chromosome Location	17q21-q22
Pathway	Cytokine-cytokine receptor interaction; Neurotrophin signaling pathway; Signalling by NGF
Function	catalytic activity; death receptor activity; nerve growth factor binding; neurotrophin receptor activity; protein binding
PDB rendering based on 1sg1.	

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