NGFR Recombinant Protein

PRODUCT OVERVIEW

Product Name	NGFR, Recombinant Protein
Full Product Name	NGFR Protein, Mouse, Recombinant (His Tag)
Product Gene Name	NGFR recombinant protein
Product Synonym Names	Mouse NGFR/P75 Protein (His Tag); LNGFR Protein, Mouse; p75 Protein, Mouse; p75NGFR Protein, Mouse; p75NTR Protein, Mouse; RP23-67E18.6 Protein, Mouse; Tnfrsf16 Protein, Mouse; nerve growth factor receptor (TNFR superfamily, member 16)
Sequence	Met1-Asn24 3
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.
Molecular Weight	50kDa
3D Structure	ModBase 3D Structure for Q9Z0W1
Species	Mouse
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Lys 22
Tag	C-His
Protein Construction	A DNA sequence encoding the extracellular domain of mouse NGFR (Q9Z0W1)(Met 1-Asn 243), without the propeptide, was fused with a C-terminal polyhistidine tag.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Product Categories/Family for NGFR recombinant protein	Death Receptor Signaling
Related Product Information for NGFR recombinant protein	Background: 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. The high-affinity nerve growth factor receptor is also referred to as the 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 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, the release of the intracellular domain chopper or cleavage short p75 NTR can independently initiate neuronal apoptosis.

Product References and Citations for NGFR recombinant protein	Chen LW, et al. (2008) The proNGF-p75NTR-sortilin signalling complex as new target for the therapeutic treatment of Parkinson's disease. CNS Neurol Disord Drug Targets. 7(6): 512-23.Deponti D, et al. (2009) The low-affinity receptor for neurotrophins p75NTR plays a key role for satellite cell function in muscle repair acting via RhoA. Mol Biol Cell.20(16): 3620-7.Ken-ichiro K, et al. (2004) Necdin-related MAGE proteins differentially interact with the E2F1 transcription factor and the p75 neurotrophin receptor. J Biol Chem. 279 (3): 1703-12.
Other Notes	Small volumes of NGFR recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for NGFR purchase	MBS8123066 is a recombinant protein targeting NGFR. Also known as NGFR Protein, Mouse, Recombinant (His Tag). Host: HEK293 Cells.



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ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NGFR. It may not necessarily be applicable to this product.

NCBI GI #	21264104
NCBI GeneID	18053
NCBI Accession #	Q9Z0W1.1
UniProt Primary Accession #	Q9Z0W1
UniProt Related Accession #	Q9Z0W1
NCBI Official Full Name	Tumor necrosis factor receptor superfamily member 16
NCBI Official Synonym Full Names	nerve growth factor receptor (TNFR superfamily, member 16)
NCBI Official Symbol	Ngfr
NCBI Official Synonym Symbols	p75; LNGFR; p75NTR; p75NGFR; Tnfrsf16
UniProt Protein Name	Tumor necrosis factor receptor superfamily member 16
UniProt Synonym Protein Names	Low affinity neurotrophin receptor p75NTR; Low-affinity nerve growth factor receptor; NGF receptor; CD_antigen: CD271
Protein Family	Tumor necrosis factor receptor superfamily
UniProt Gene Name	Ngfr
UniProt Synonym Gene Names	Tnfrsf16; NGF receptor
NCBI Protein Information	tumor necrosis factor receptor superfamily member 16
UniProt Comments for NGFR	Low affinity receptor which can bind to NGF, BDNF, NT-3, and NT-4. Can mediate cell survival as well as cell death of neural cells (). Plays a role in the regulation of the translocation of GLUT4 to the cell surface in adipocytes and skeletal muscle cells in response to insulin, probably by regulating RAB31 activity, and thereby contributes to the regulation of insulin-dependent glucose uptake. Binds to rabies virus glycoprotein Gs. Necessary for the circadian oscillation of the clock genes ARNTL/BMAL1, PER1, PER2 and NR1D1 in the suprachiasmatic nucleus (SCN) of the brain and in liver and of the genes involved in glucose and lipid metabolism in the liver.
Research Articles on NGFR	**1.** Dermal CD271+ cells are closely associated with wound healing.

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