# Recombinant Rat CNTFR/CNTFR-alpha Protein (His Tag)

### Catalog No. PKSR030401

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

Description	
Synonyms	Cntfr
Species	Rat
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Pro 346
Accession	Q08406-1
Calculated Molecular Weight	39.6 kDa
Observed molecular weight	48 kDa
Tag	C-His
Bioactivity	Immobilized Rat CTNFR at 10 $\mu$ g/ml (100 $\mu$ l/well) can bind biotinylated human CNTF with a linear ranger of 1. 28-160 ng/ml.
Properties	
Purity	> 97 % 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 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.0 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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	



> 97 % as determined by reducing SDS-PAGE.

## Background

Ciliary neurotrophic factor(CNTF) is a member of the cytokine family. It is a polypeptide hormone that have functions in

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promoting neurotransmitter synthesis and neurite outgrowth in certain neuronal populations. It's actions appear to be restricted to the nervous system. Ciliary neurotrophic factor(CNTF) has biological effects through the activation of a multi-subunit receptor complex, consisting of an extracelluar CNTF binding subunit(CNTF $\alpha$ ) and two transmembrane signal transduction proteins: glycoprotein gp130 and LIF receptor. CNTF is considered as a potent survival factor of neurons and oligodendrocytes and may be relevant in reducing tissue destruction during inflammatory attacks. CNTF is also a survival factor for neurons of the peripheral sensory sympathetic, and ciliary ganglia. It has been reported that CNTF could be an agent that has therapeutic potential and possibly induces differentiation of large multipolar ganglionic phenotype in a subset of progenitors.

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