Recombinant Human/Mouse/Rat/Porcine NTF3 Protein

Cat. No. NTF3-30H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human/mouse/rat/porcine NT-3 protein without tag was expressed in E. coli. Animal-free (AOF) and carrier protein-free. Mass spectrometry: single species with expected mass. Recovery from stock vial: >95%
Species	Human
Source	E.coli
Description	The protein encoded by this gene is a member of the neurotrophin family, that controls survival and differentiation of mammalian neurons. This protein is closely related to both nerve growth factor and brain-derived neurotrophic factor. It may be involved in the maintenance of the adult nervous system, and may affect development of neurons in the embryo when it is expressed in human placenta. NTF3-deficient mice generated by gene targeting display severe movement defects of the limbs. The mature peptide of this protein is identical in all mammals examined including human, pig, rat and mouse.
Molecular Mass	27.3 kDa dimer, 13.7 kDa monomer
Endotoxin	<0.005 EU/μg protein (below level of detection)
Applications	Induced pluripotent and embryonic Stem cell Differentiation and maintenance

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Storage	Resuspend in 10mM HCl (Reconstitution solution A) at >100 µg/mL, prepare single-use aliquots, add carrier protein if desired and store frozen at -20 centigrade (short-term) or -80 centigrade (long-term)
Storage Buffer	Lyophilized from acetonitrile/TFA

GENE INFORMATION

Gene Name	NTF3 neurotrophin 3 [Homo sapiens (human)]
Official Symbol	NTF3
Synonyms	NTF3; neurotrophin 3; NT3; HDNF; NGF2; NT-3; NGF-2; neurotrophin-3; nerve growth factor 2; neurotrophic factor
Gene ID	4908
mRNA Refseq	NM_002527
Protein Refseq	NP_002518
MIM	162660
UniProt ID	P20783

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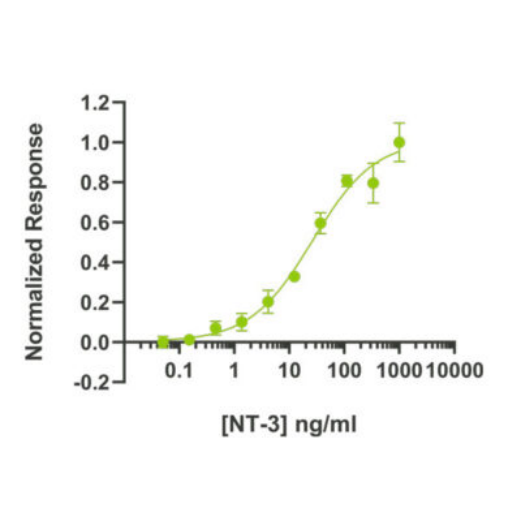
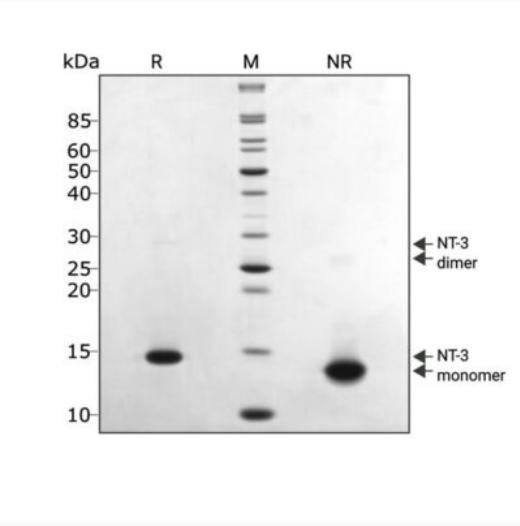
Bioactivity



The bioactivity of NT-3 is measured using a luciferase reporter assay in HEK293T cells co-transfected with the TrkA receptor.
Cells are treated in triplicate with a serial dilution of NT-3 for 3 hours. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity. EC50 = 23 ng/mL (0.84 nM)

Purity



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Human NT-3migrates mainly as a single band at 13.7 kDa in non-reducingconditions and upon reduction (R). Purified recombinant protein was resolved using 15% w/v SDS-PAGE in reducedand non-reducedconditions and stained with Coomassie Brilliant Blue R-250. A faint band visible at 27.3 kDa in NR and R conditions, corresponds to the non-covalently linked NT-3 dimer. No contaminating bands are visible.

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