

Recombinant Murine Neuropoietin

#R00281

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Neuropoietin (NP; also known as cardiotrophin-2) is a 19.7 kDa member of the IL-6 family of cytokines. Considered to be the product of a gene duplication event involving cardiotrophin-1 (CT-1), it helps to define a subfamily within the IL-6 family that includes CT-1, CLC and CTNF. Mouse neuropoietin is synthesized as a 204 amino acid (aa) precursor that contains a 22 aa signal sequence and a 182 aa mature segment. The secreted molecule is characterized by the presence of four alpha-helices, typical of hematopoietic superfamily molecules. Mature murine neuropoietin shares 88%, 90% and 95% aa identity to chimpanzee, canine and rat neuropoietin, respectively.

AA Sequence

APISPSEPIGQAYSLALYMQKNTSALLQTYLQHQGSP
FSDPGFSAPELQLSTLPSAAVSFKTWHAMEDAERLS
RAQGAFLALTQHLQLVGDDQSYLNPGSPILLAQLGAA

RLRAQGLLGNMAAIMTALGLPIPPEEDTLGFVPFGAS
AFERKCRGYIVTREYGHWTDRVRDLALLKAKYSA

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Ctf2
Accession	P83714
GeneID	244218
Unigene	Mm.249829.
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 19.7 kDa, a single non-glycosylated polypeptide chain containing 182 amino acids.
Purity	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED₅₀ as determined by a cell proliferation assay using human TF-1 cells is less than 200 ng/ml,

	corresponding to a specific activity of > 5000 IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM Tris-HCl, pH8.0, 500 mM NaCl, with 0.5 mM DTT.
Endotoxin	Less than 1 EU/μg of rMuNeuropoietin as determined by LAL method.
