

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Neuropoietin/NP in direct ELISAs and Western blots.
Source	Monoclonal Rat IgG ₁ Clone # 321525
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse Neuropoietin/NP Ala23-Ala204 Accession # P83714
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse Neuropoietin/NP (Catalog # 2709-NP)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Neuropoietin (NP; also known as cardiotrophin-2) is a 22 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 CNTF. Mouse neuropoietin is synthesized as a 204 amino acid (aa) precursor that contains a 22 aa signal sequence and a 192 aa mature segment. The secreted molecule is characterized by the presence of four α-helices, typical of hematopoietic superfamily molecules. Mature mouse neuropoietin shares 88%, 90% and 95% aa identity to chimpanzee, canine and rat neuropoietin, respectively. The human gene is suggested to have evolved towards a pseudogene, a point of interest in that neuropoietin is reported to signal through the CNTF complex (*i.e.*, gp130, CNTF Rα and LIF R). NP will mediate motor neuron survival, and appears to be selectively expressed in the embryo by tissues involved with nervous system development (1).

References:

1. Derouet, D. *et al.* (2004) Proc. Natl. Acad. Sci. USA **101**:4827.