

Product Information

Monoclonal Anti-Nerve Growth Factor- β , clone 25623

produced in mouse, purified immunoglobulin

Catalog Number **N3279**

Product Description

Monoclonal Anti-Nerve Growth Factor- β (NGF- β ; IgG1 isotype) is produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice. Recombinant human nerve growth factor- β (rhNGF- β), which was expressed in mouse NSO myeloma cells, was used as the immunogen. The antibody is purified from ascites fluid using Protein G chromatography.

Monoclonal Anti-Nerve Growth Factor- β specifically reacts with NGF- β by capture ELISA and neutralization.¹ This clone has been shown to neutralize the biological activity of recombinant human NGF- β and recombinant rat (rr) NGF- β and recombinant mouse (rm) NGF- β . When used as a capture antibody in ELISAs, this antibody shows less than 5% cross-reactivity with recombinant rat NGF- β , recombinant mouse NGF- β and recombinant human (rh) BDNF, rhNT-3, and rhNT-4 is observed.

NGF-7S is characterized as a non-covalent aggregate containing three types of polypeptide chains, α , β , and γ . NGF- β is isolated from dissociated, homogeneous NGF 7S. The gene encoding human NGF- β has been localized to chromosome 1 (p22.1) by somatic cell hybridization.^{2,3} Comparison of the mouse and human genes indicates that the two genes are organized with similar intron/exon structure.⁴ Recombinant human NGF- β is a homodimer of two 120 amino acid polypeptides. The human protein shares ~90% homology at the amino acid level with both mouse and rat NGF- β .

Reagent

Lyophilized from 0.2 μ m-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses.

Preparation Instructions

To one vial of lyophilized powder, add 1 mL of 0.2 μ m filtered PBS to produce a 0.5 mg/mL stock solution of antibody.

Storage/Stability

Prior to reconstitution, store at -20°C . Reconstituted product may be stored at $2-8^{\circ}\text{C}$. for at least one month. For prolonged storage, freeze in working aliquots at -20°C . Avoid repeated freezing and thawing.

Product Profile

A Neutralization Dose₅₀ (ND₅₀) of 0.1-0.4 μ g/mL was observed in the presence of 5 ng/ mL of recombinant human NGF- β using the NGF- β responsive cell line TF-1.

The ND₅₀ is the concentration of antibody required to yield one-half maximal inhibition of the cytokine activity on a responsive cell line, when the cytokine is present at a concentration just high enough to elicit a maximum response.

The exact concentration of antibody required to neutralizes the bioactivity of rh NGF- β , rm NGF- β and rr NGF- β .

Capture ELISA: Monoclonal Anti-Nerve Growth Factor- β can be used as the capture antibody. Use at a working concentration of 2-8 μ g/mL in combination with a biotinylated NGF- β polyclonal detection antibody (0.1-0.4 μ g/mL).

Note: In order to obtain the best results in various techniques and preparations, it is recommended to determine the optimal working dilutions by titration.

Endotoxin level is < 0.1 EU per 1 μ g antibody as determined by the LAL method.

References

1. Kitamura, T. et al., *J. Cell Physiol.*, **140**, 322 (1989).
2. Francke, U. et al., *Science*, **222**, 1248 (1983).
3. Zabel, B. et al., *Proc. Natl. Acad. Sci. USA*, **82**, 469 (1985).
4. Selby, M. et al., *Mol. Cell Biol.*, **7**, 3057 (1987).

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