

**Product:** **Recombinant Human NGF- $\beta$**   
**Cat #: 300-174P**  
Powder

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| Description  | Nerve Growth Factor (NGF- $\beta$ ) is a neurotrophic factor related to BDNF, NT-3 and NT-4. NGF- $\beta$ acts through its receptor $\beta$ -NGFR, and is involved in the development and maintenance of the sensory and sympathetic nervous systems. NGF- $\beta$ is also involved in the growth, differentiation and survival of B lymphocytes. Human, mouse and rat proteins show cross-reactivity. |
| MW   | Non-covalently linked homodimer, containing two 121 amino acid chains, with a total molecular weight of 27.2 kDa.  |
| Physical Appearance  | Sterile filtered white lyophilized (freeze-dried) powder.  |
| Source   | <i>E. coli</i>   |
| Formulation  | Recombinant human NGF- $\beta$ is lyophilized with no additives.   |
| Reconstitution   | Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.   |
| Stability  | Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.  |
| Biological Activity  | The activity is determined by the ability to stimulate proliferation of TF-1 cells and is typically less than 1 ng/mL.   |
| Endotoxin Level  | Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein.  |
| AA Sequence  | MSSSHPIFHRG EFSVCDSVSV WVGDKTTATD IKGKEVMVLG EVNINNSVFK<br>QYFFETKCRD PNPVDSGCRG IDSKHWNSYC TTTHTFVKAL TMDGKQAAWR<br>FIRIDTACVC VLSRKAVRRA   |
| Purity greater than 97% determined by HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm. |  |
| Protein content determined by HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.         |  |

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**