

# Recombinant Human beta-Nerve Growth Factor (rh beta-NGF/NGF-beta)

**Synonyms:** Beta Polypeptide, NGF, NGFB, HSAN5, MGC161426, MGC161428

**Introduction:** NGF-beta has nerve growth stimulating activity and the complex is involved in the regulation of growth and the differentiation of sympathetic and certain sensory neurons. Mutations in this gene have been associated with hereditary sensory and autonomic neuropathy, type 5 (HSAN5), and dysregulation of this gene's expression is associated with allergic rhinitis.

**Description:** Recombinant human beta-NGF produced in CHO is a noncovalently disulfide linked homodimer, glycosylated, polypeptide chain (Ser122-Arg239) containing 2 identical 118 amino acids and having a molecular mass of 26.5 kDa.

The NGF-b is purified by proprietary chromatographic techniques

**Source:** *Chinese Hamster Ovary Cells.*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a 0.2 µm filtered solution in 20mM PB and 250mM NaCl, pH 7.0. The aliquots of 1µg contain Trehalose 5% (w/vol) for better recovery.

**Solubility:** It is recommended to reconstitute the lyophilized rh beta-NGF in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh beta-NGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh beta-NGF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

**Amino acid Sequence:** Was analyzed by Mass spectrometry.

**Biological Activity:** The ED<sub>50</sub>, calculated by its ability to stimulate chick E9 DRG neurite outgrowth was found to be < 1.0 ng/ml, corresponding to a specific activity of > 1 x 10<sup>6</sup> units/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11343350
<i>medium</i>	20 µg	Cat.N°	11343354
<i>large</i>	100 µg	Cat.N°	11343356
<i>x-large</i>	500 µg	Cat.N°	11343357

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