

## Human Recombinant Nerve Growth Factor b

Nerve growth factor (NGF) is a member of the neurotrophin protein family. *In vivo* the factor regulates growth and survival of sympathetic and sensory neurons. Structurally NGF is characterized by a cystin knot motif consisting of three disulfide bridges. It exists as a non-covalently linked homodimer. Recombinant human NGF has primarily 118 amino acids, however, due to the production of the protein by proteolytic processing of the proprotein there may be some minor species with a N-terminus extended by 1 and 3 amino acids, respectively. The activity of the protein can be measured by its stimulating effect on the proliferation of TF1 cells (Chevalier *et al.* 1994 *Blood* **83**, 1479-85).



<b>Protein</b>	human recombinant NGF
<b>Source</b>	<i>E. coli</i>
<b>Lot no.</b>	CH17-7

### Protein characteristics:

<b>Molecular weight (dimer)</b>	26522 Da
<b>Theoretical pI</b>	8.81
<b>Absorption coefficient</b>	39980 M <sup>-1</sup> ·cm <sup>-1</sup>
<b>Sequence (SwissProt AccNo)</b>	P01138

SSSHPIFHRRGEFSVCDSVSVWVGDKTTATDIKGKEVMVLGEVNIINNSVFKQYFFETKCRD  
PNPVDSGCRGIDSKHWNSYCTTTHTFVKALTMDSGKQAAWRFRIDTACVCVLSRKAVER

### Product analysis:

<b>Concentration</b>	0.70 mg/ml
<b>Purity</b>	greater than 98% (by SDS-PAGE)
<b>Endotoxins</b>	less than 0.05 EU/μg
<b>Biological activity</b>	10.9 ± 2.7 pM (TF1 cell assay)

### Storage:

<b>Buffer</b>	50 mM sodium phosphate pH 7.2 150 mM sodium chloride
<b>Short term (&lt; 5 weeks)</b>	4-8°C
<b>Long term (5 weeks - 1 year)</b>	-20°C

It is recommended to spin down the protein and to prepare and store working aliquots.

**This product is for *in vitro* research only. The toxicity has not been thoroughly investigated.**