**Human β-NGF / Beta-NGF Protein**

**Catalog Number:** 11050-HNAC

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**General Information**

**Gene Name Synonym:**
Beta-NGF; HSAN5; NGFB

**Protein Construction:**
A DNA sequence encoding the mature form of human β-NGF (NP_002497.2) (Ser 122-Arg 239) was expressed.

**Source:** Human

**Expression Host:** CHO Stable Cells

**QC Testing**

**Purity:** > 95 % as determined by SDS-PAGE

**Bio Activity:**
*Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED₅₀ for this effect is typically 0.2-2 ng/ml.*

**Endotoxin:**
< 1.0 EU per µg of the protein as determined by the LAL method

**Predicted N terminal:** Ser 122

**Molecular Mass:**
The mature recombinant human β-NGF consists of 118 amino acids and has a predicted molecular mass of 13.2 kDa. β-NGF exists as a non-disulfide linked homodimer in solution.

**Formulation:**
Lyophilized from sterile 40mM His, 40mM Arg, 150mM NaCl, pH 5.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

**Usage Guide**

**Stability & Storage:**
Samples are stable for twelve months from date of receipt at -20°C to -80°C.

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

**Reconstitution:**
Detailed reconstitution instructions are sent along with the products.

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**SDS-PAGE:**

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**Protein Description**

Nerve growth factor (NGF) is important for the development and maintenance of the sympathetic and sensory nervous systems. NGF protein was identified as a large complex consisting of three non-covalently linked subunits, &alpha;-, &beta;-, and &gamma;-, among which, the &beta; subunit, called &beta;-,NGF (beta-NGF), was demonstrated to exhibit the growth stimulating activity of NGF protein. NGFB/beta-NGF gene is a member of the NGF-beta family and encodes a secreted protein which homodimerizes and is incorporated into a larger complex. NGF protein acts via at least two receptors on the surface of cells (TrkA and p75 receptors) to regulate neuronal survival, promote neurite outgrowth, and up-regulate certain neuronal functions such as mediation of pain and inflammation. In addition, previous studies indicated that NGF may also have an important role in the regulation of the immune system.

**References**