# abcam

# Product datasheet

# Human Beta Nerve Growth Factor ELISA Kit (NGFB) ab99986

#### Overview

Product name Human Beta Nerve Growth Factor ELISA Kit (NGFB)

**Detection method**Colorimetric

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 14 pg/ml

**Range** 6.86 pg/ml - 5000 pg/ml

Recovery > 100 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	106.7	90% - 122%
Serum	113.1	98% - 116%
Plasma	102.8	85% - 117%

**Assay duration** Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Abcam's Beta Nerve Growth Factor (NGFB) Human ELISA (Enzyme-Linked Immunosorbent

Assay) kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of

Human Beta Nerve Growth Factor in serum, plasma, and cell culture supernatants.

This assay employs an antibody specific for Human Beta Nerve Growth Factor coated on a 96-well plate. Standards and samples are pipetted into the wells and Beta Nerve Growth Factor present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human Beta Nerve Growth Factor antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of Beta Nerve Growth Factor bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

1

Get results in 90 minutes with Human beta Nerve Growth Factor ELISA Kit (<u>ab193760</u>) from our

SimpleStep ELISA® range.

Notes NGFB concentration is very low in normal human serum samples and may be undetectable even

with undiluted samples. Optimization may be required with urine samples.

**Platform** Microplate

### **Properties**

#### Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
5X Assay Diluent	1 x 15ml
800X HRP-Streptavidin Concentrate	1 x 200µl
Beta Nerve Growth Factor Microplate (12 x 8 wells)	1 unit
Beta Nerve Growth Factor Standard Human (recombinant) (lyophilized)	2 vials
Biotinylated anti-Human Beta Nerve Growth Factor	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

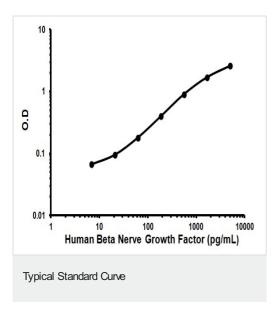
# Relevance

Nerve growth factor (NGF) is one of a family of neurotrophins that induce the survival and proliferation of neurons. In cell culture, NGF induces the formation of neurite projections and, in vivo, may stimulate the innervation of tissues. NGF plays a role in the repair, regeneration, and protection of neurons, and as such could serve as a therapeutic agent in neurodegenerative conditions such as Alzheimer's disease. NGF enhances survival, growth, neurotransmitter biosynthesis of sympathetic and sensory neurons; neurotrophic factor; cutaneous innervation; growth, differentiation and survival of B lymphocytes. It also has a possible role in allergy and tissue repair. NGF is found in the hypothalamus, pituitary, thyroid gland, testes, epididymis, vascular smooth muscle cells, fibroblasts, mast cells and eosinophils. NGF is upregulated by glutamate, vitamin D3, IL6, FGF basic, astrocyte specific IL1, TNF alpha, PDGF and TGF beta. It is downregulated by GABAergic neuronal activity, glucocorticoids and Schwann cell-specific TGF beta.

# **Cellular localization**

Secreted.

### **Images**



Representative Standard Curve using ab99986.

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