

Product datasheet

Rat betaNGF ELISA Kit ab100757

★★★★★ [1 Abreviews](#) [6 References](#) [2 Images](#)

Overview

Product name	Rat betaNGF ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 40 pg/ml
Range	0.049 ng/ml - 100 ng/ml
Recovery	100 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	132.1	123% - 142%
Serum	111.7	102% - 121%
Plasma	97.02	70% - 126%

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Rat

Product overview

Abcam's betaNGF Rat ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Rat betaNGF in serum, plasma and cell culture supernatants.

This assay employs an antibody specific for Rat betaNGF coated on a 96-well plate. Standards and samples are pipetted into the wells and betaNGF present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Rat betaNGF 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 betaNGF bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

Platform Microplate

Properties

Storage instructions

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

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
500X HRP-Streptavidin Concentrate	1 x 200µl
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
betaNGF Microplate (12 strips x 8 wells)	1 unit
betaNGF Standard Rat (recombinant) (lyophilized)	2 vials
Biotinylated anti-Rat beta-NGF	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

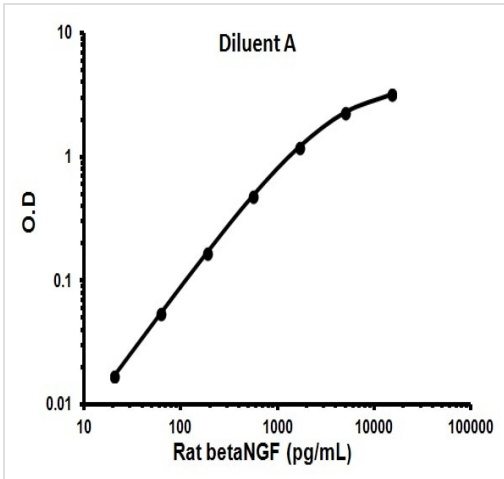
Relevance

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

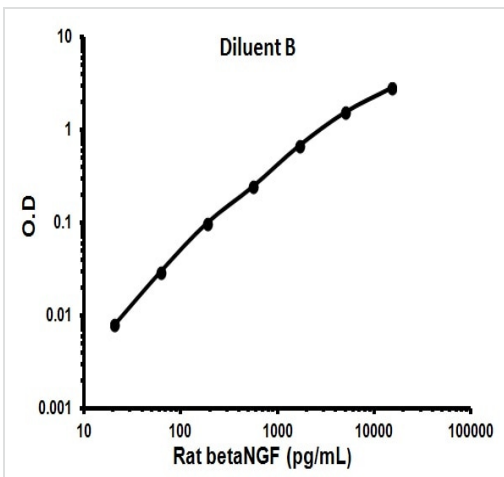
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Images



Representative Standard Curve using ab100757.

Typical Standard Curve



Representative Standard Curve using ab100757.

Typical Standard Curve

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