

SimpleStep ELISA®

★★★★★ **1 Abreviews** **5 References** 6 Images

Overview

Detection method	Colorimetric
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Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	5			3.4%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			6.7%

Assay type	Sandwich (quantitative)
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Sensitivity 6 pg/ml

Range 27.3 pg/ml - 1750 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	96	95% - 99%
Urine	96	94% - 100%
Serum	94	92% - 95%
Hep Plasma	93	92% - 95%
EDTA Plasma	88	83% - 92%
Cit plasma	82	76% - 88%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human
Product overview	<p>Human beta Nerve Growth Factor ELISA Kit (ab193760) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of beta Nerve Growth Factor protein in edta plasma, hep plasma, urine, serum, cell culture supernatant, and cit plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human beta Nerve Growth Factor with 6 pg/ml sensitivity.</p> <p>SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:</p> <ul style="list-style-type: none"> - Single-wash protocol reduces assay time to 90 minutes or less - High sensitivity, specificity and reproducibility from superior antibodies - Fully validated in biological samples - 96-wells plate breakable into 12 x 8 wells strips <p>A 384-well SimpleStep ELISA® microplate (ab203359) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.</p>
Notes	<p>Beta Nerve Growth Factor is involved in the development of maintenance of the sympathetic and sensory nervous systems. As a ligand for NTRK1 and NGFR receptors, it's involved in cell signaling cascades that regulate neuronal proliferation, differentiation, and survival.</p> <p>Beta Nerve Growth Factor is also involved in modulation of the immune system and in the trauma response, and has been implicated in a variety of responses including memory and mental health.</p>
Platform	Microplate

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human beta NGF Capture Antibody	1 x 600µl
10X Human beta NGF Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human beta NGF Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

Components	1 x 96 tests
Sample Diluent 50BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

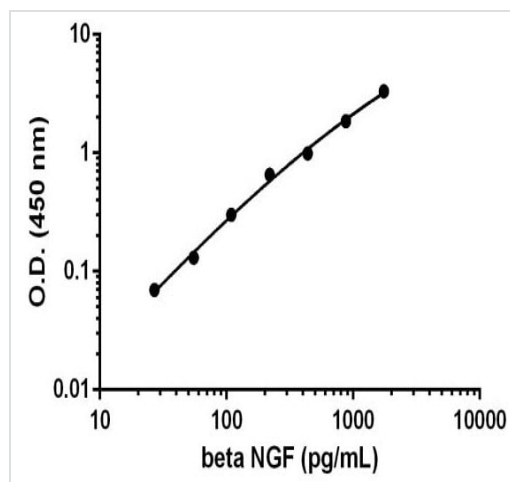
Relevance

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

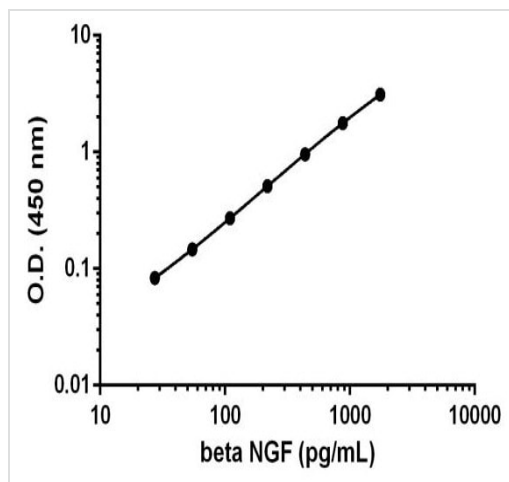
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Images



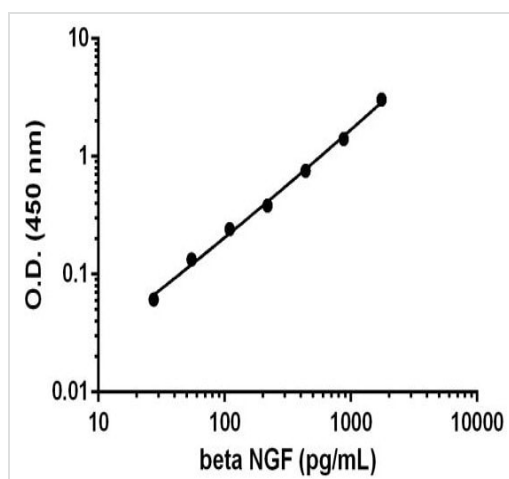
Background-subtracted data values (mean \pm SD) are graphed.

Example of beta Nerve Growth Factor standard curve in Sample Diluent NS.



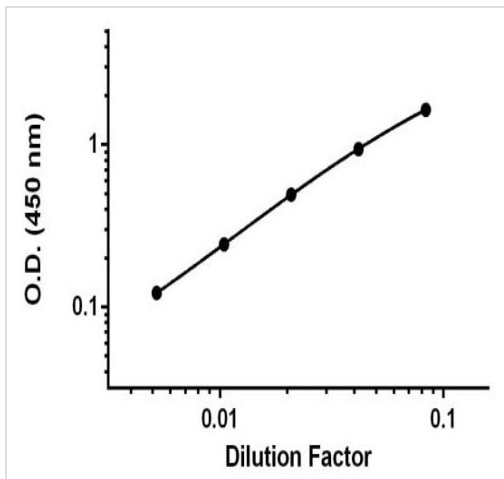
Background-subtracted data values (mean +/- SD) are graphed.

Example of beta Nerve Growth Factor standard curve in Sample Diluent 25BS.



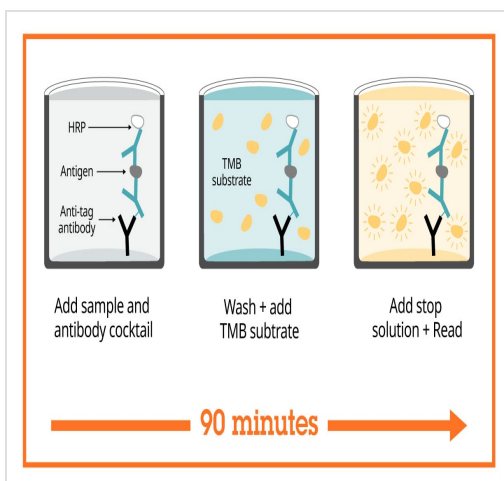
Background-subtracted data values (mean +/- SD) are graphed.

Example of beta Nerve Growth Factor standard curve in Sample Diluent 50BS.



Titration of Human serum (spiked with 875 pg/mL purified beta Nerve Growth Factor) within the working range of the assay.

Background-subtracted data values (mean \pm SD, $n = 2$) are graphed.



Sandwich ELISA - Human beta Nerve Growth Factor
ELISA Kit (ab193760)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Get more done with SimpleStep ELISA



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Human beta Nerve Growth Factor
ELISA Kit (ab193760)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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