

Human NT-proBNP ELISA Kit ab263877

Recombinant SimpleStep ELISA

1 References 7 Images

Overview

Product name Human NT-proBNP ELISA Kit

Detection method Colorimetric

Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Serum	8			4.3%

	Inter-assay				
	Sample	n	Mean	SD	CV%
	Serum	3			5.6%

Sample type Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 11.5 pg/ml

Range 21.9 pg/ml - 1400 pg/ml

Recovery	Sample specific recovery		
	Sample type	Average %	Range
	Serum	90	84% - 94%
	Hep Plasma	89	84% - 93%
	EDTA Plasma	89	88% - 90%
	Cit plasma	90	85% - 94%

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Human

Does not react with: Cow

Product overview

Human NT-proBNP ELISA Kit (ab263877) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of NT-proBNP protein in cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human NT-proBNP with 11.5 pg/ml sensitivity.

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:

- 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

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

NT-proBNP, or Brain Natriuretic Peptide, is a hormone expressed by cardiomyocytes by the gene *NPPB*. NT-proBNP is synthesized as a 134- amino acid prohormone (prepro-BNP), subsequent removal of a 25 amino acid signal peptide forms pro-BNP, which is stored intracellularly. Pro-BNP is secreted as an inactive prohormone and cleavage by furin or corin forms NT-pro-BNP and the active 32- amino acid BNP-32 peptide. BNP may function as a paracrine antifibrotic factor in the heart, as well as have a key role in cardiovascular homeostasis through natriuresis, diuresis, vasorelaxation, and inhibition of renin and aldosterone secretion. The antibody pair in this product detect NT-pro-BNP.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

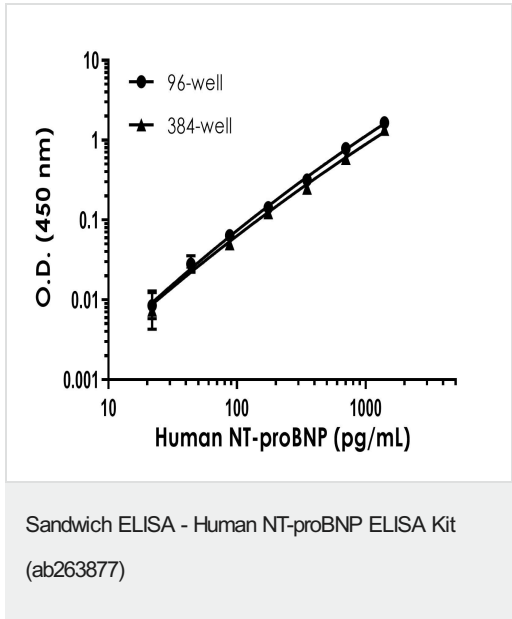
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests	1 x 384 tests	1 x 96 tests
10X Human NT-proBNP Capture Antibody	1 x 600µl	1 x 600µl	1 x 600µl
10X Human NT-proBNP Detector Antibody	1 x 600µl	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	1 unit	0 x 0 unit
Antibody Diluent CPI2	1 x 6ml	1 x 6ml	1 x 6ml
Human NT-proBNP Lyophilized Recombinant Protein	2 vials	2 vials	2 vials
Plate Seals	1 unit	1 unit	1 unit

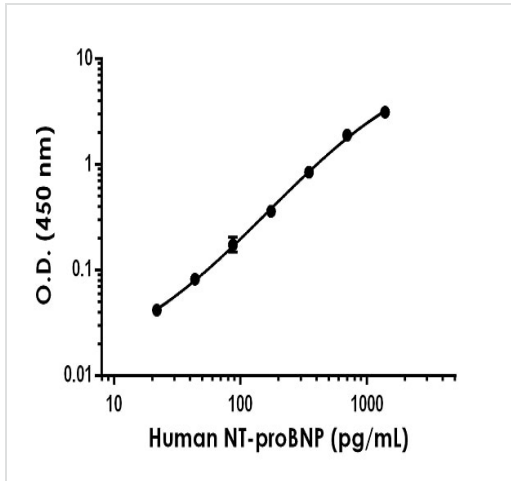
Components	1 x 96 tests	1 x 384 tests	1 x 96 tests
Sample Diluent 50BS	1 x 20ml	1 x 20ml	1 x 20ml
Sample Diluent NS (ab193972)	1 x 12ml	0 x 0ml	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	0 x 0 unit	1 unit
Stop Solution	1 x 12ml	2 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	2 x 12ml	1 x 12ml

Function	Cardiac hormone which may function as a paracrine antifibrotic factor in the heart. Also plays a key role in cardiovascular homeostasis through natriuresis, diuresis, vasorelaxation, and inhibition of renin and aldosterone secretion. Specifically binds and stimulates the cGMP production of the NPR1 receptor. Binds the clearance receptor NPR3.
Tissue specificity	Brain and also in atria, but at much lower levels than ANP.
Sequence similarities	Belongs to the natriuretic peptide family.
Cellular localization	Secreted.

Images

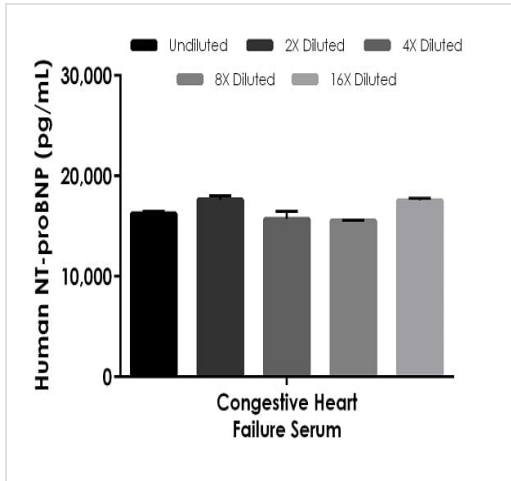


Example of human NT-proBNP standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.



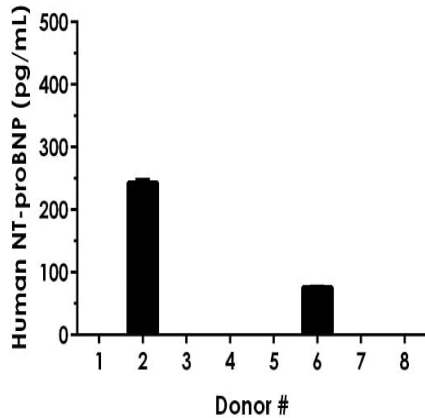
The NT-proBNP standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human NT-proBNP standard curve in Sample Diluent 50BS.



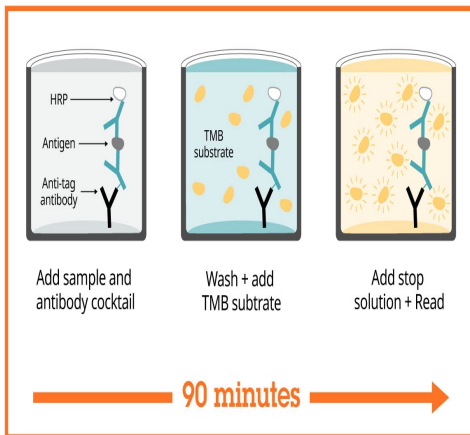
The concentrations of NT-proBNP were measured in duplicates, interpolated from the NT-proBNP standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 7.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean NT-proBNP concentration was determined to be 16,839 pg/mL in serum.

Interpolated concentrations of native NT-proBNP in human congestive heart failure serum samples.



Serum from eight individual healthy human female donors was measured in duplicate.

Two were positive for Human BNP. Interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean NT-proBNP concentration was determined to be 159.7 pg/mL with a range of 76.1 – 243.3 pg/mL.



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.

Sandwich ELISA - Human NT-proBNP ELISA Kit
(ab263877)

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with
SimpleStep ELISA**



Easy to use
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Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Human NT-proBNP ELISA Kit
(ab263877)

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

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