

Product datasheet

Human PTH ELISA Kit ab230931

Recombinant SimpleStep ELISA[®]

[4 References](#) [6 Images](#)

Overview

Product name Human PTH ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Spiked serum	8			1.5%

Inter-assay

Sample	n	Mean	SD	CV%
Spiked serum	3			3.8%

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

Assay type Sandwich (quantitative)

Sensitivity 0.761 pg/ml

Range 4.69 pg/ml - 300 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	88	88% - 89%
Cell culture media	105	104% - 106%
Hep Plasma	83	81% - 84%
EDTA Plasma	90	88% - 92%
Cit plasma	82	81% - 82%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Human**Product overview**

Human PTH ELISA Kit (ab230931) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PTH protein in cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human PTH with 0.761 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.

Platform

Pre-coated microplate (12 x 8 well strips)

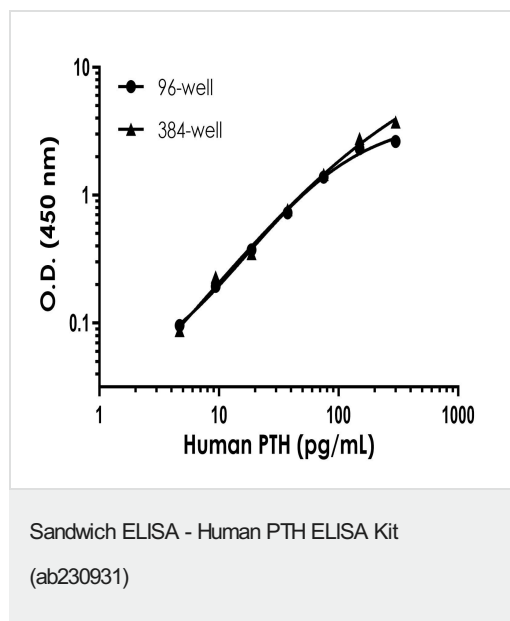
Properties**Storage instructions**

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

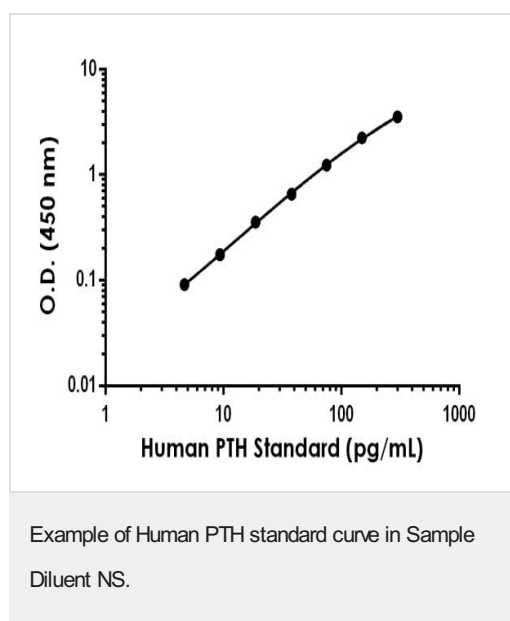
Components	1 x 96 tests	10 x 96 tests	1 x 384 tests
10X Human PTH Capture Antibody	1 x 600µl	1 x 6000µl	1 x 600µl
10X Human PTH Detector Antibody	1 x 600µl	1 x 6000µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	0 x 0 unit	1 unit
Antibody Diluent 4BI	1 x 6ml	10 x 6ml	1 x 6ml
Human PTH Lyophilized Recombinant Protein	2 vials	2 x 10 vials	2 vials
Plate Seals	1 unit	1 x 10 units	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units	0 x 0 unit
Stop Solution	1 x 12ml	1 x 120ml	2 x 12ml
TMB Development Solution	1 x 12ml	1 x 120ml	2 x 12ml

Function	PTH elevates calcium level by dissolving the salts in bone and preventing their renal excretion. Stimulates [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblastic cells.
Involvement in disease	Defects in PTH are a cause of familial isolated hypoparathyroidism (FIH) [MIM:146200]; also called autosomal dominant hypoparathyroidism or autosomal dominant hypocalcemia. FIH is characterized by hypocalcemia and hyperphosphatemia due to inadequate secretion of parathyroid hormone. Symptoms are seizures, tetany and cramps. FIH exist both as autosomal dominant and recessive forms of hypoparathyroidism.
Sequence similarities	Belongs to the parathyroid hormone family.
Cellular localization	Secreted.

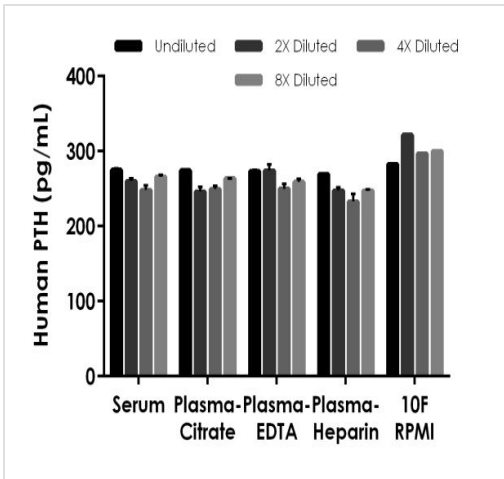
Images



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



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



Interpolated concentrations of spiked PTH in Human serum, plasma and cell culture media samples.

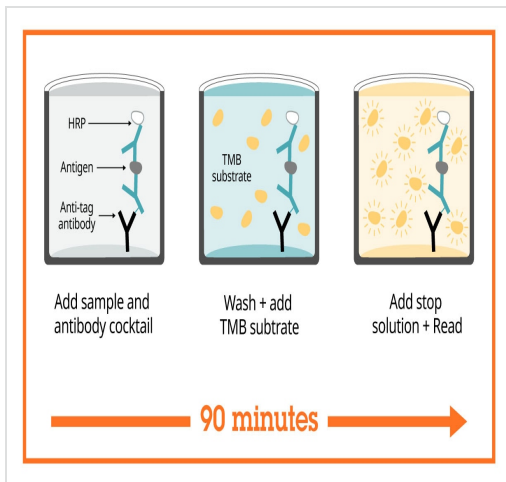
The concentrations of PTH were measured in duplicate, interpolated from the PTH standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50%, plasma (heparin) 50% and 10F RPMI media 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PTH concentration was determined to be 262.33 pg/mL in serum, 258.51 pg/mL in plasma (citrate) and 264.22 pg/mL in plasma (EDTA), 249.32 pg/mL in plasma (heparin), and 300.25 pg/mL in 10F RPMI media 100%.

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

Sandwich ELISA - Human PTH ELISA Kit
(ab230931)

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



Sandwich ELISA - Human PTH ELISA Kit
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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 PTH ELISA Kit
(ab230931)

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

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