

Product datasheet

Human PNP ELISA Kit (Purine Nucleoside Phosphorylase) ab260069

Recombinant SimpleStep ELISA

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Overview

Product name Human PNP ELISA Kit (Purine Nucleoside Phosphorylase)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			8.3%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			4.1%

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

Assay type Sandwich (quantitative)

Sensitivity 40 pg/ml

Range 78.13 pg/ml - 5000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	96	85% - 108%
Hep Plasma	90	82% - 104%
EDTA Plasma	96	85% - 110%
Cit plasma	103	90% - 114%

Assay time 1h 30m

Assay duration One step assay

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

Human PNP ELISA Kit (Purine Nucleoside Phosphorylase) (ab260069) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PNP (Purine Nucleoside Phosphorylase) protein in cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human PNP (Purine Nucleoside Phosphorylase) with 40 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

Purine Nucleoside Phosphorylase (PNP) is a catabolic enzyme which breaks down purine residues by releasing the nucleobase and phosphorylating the ribose residue. It is also used to produce nucleotide monobases as a salvage pathway. PNP plays an important role in the maintenance of T-cells. This kit targets the full-length protein.

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
10X Human PNP (Purine Nucleoside Phosphorylase) Capture Antibody	1 x 600µl
10X Human PNP (Purine Nucleoside Phosphorylase) Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BR	1 x 6ml
Human PNP (Purine Nucleoside Phosphorylase) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

Components	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Involvement in disease

Defects in PNP are the cause of purine nucleoside phosphorylase deficiency (PNP deficiency) [MIM:613179]. It leads to a severe T-cell immunodeficiency with neurologic disorder in children.

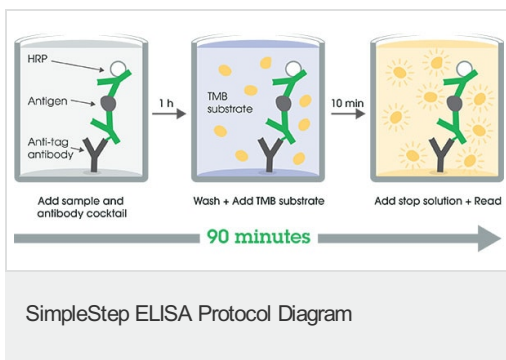
Sequence similarities

Belongs to the PNP/MTAP phosphorylase family.

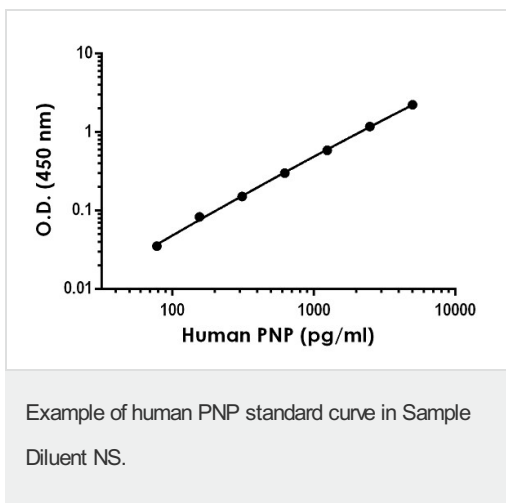
Cellular localization

Cytoplasm > cytoskeleton.

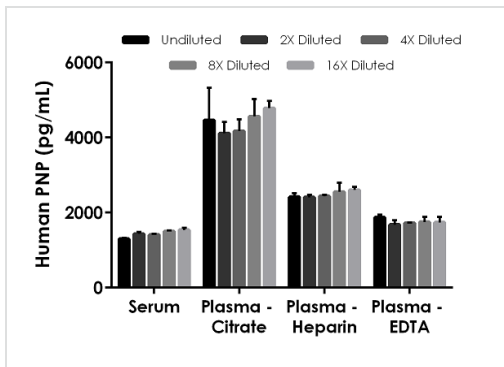
Images



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.




The PNP 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.




Interpolated concentrations of native PNP in human serum and plasma samples.

The concentrations of PNP were measured in duplicate, interpolated from the PNP standard curves, and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (citrate) 100%, plasma (heparin) 100% and plasma (edta) 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PNP concentration was determined to be 1435.64 pg/mL in serum, 4419.64 pg/mL in plasma (citrate), 2483.57 pg/mL in plasma (heparin), and 1750.71 pg/mL in plasma (edta).


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 PNP ELISA Kit (Purine Nucleoside Phosphorylase) (ab260069)

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

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