

Human PAP ELISA Kit (ACPP) ab267802

Recombinant SimpleStep ELISA

1 References 7 Images

Overview

Product name Human PAP ELISA Kit (ACPP)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			3.5%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			3.4%

Sample type Cell culture supernatant, Urine, Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 9.73 pg/ml

Range 37.5 pg/ml - 2400 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	99	82% - 86%
Urine	89	81% - 95%
Serum	88	84% - 93%
Cell culture media	84	89% - 111%
Hep Plasma	96	87% - 106%
EDTA Plasma	89	81% - 98%

Sample type	Average %	Range
Cit plasma	90	80% - 99%

#### Assay time

1h 30m

#### Assay duration

One step assay

#### Species reactivity

**Reacts with:** Human

#### Product overview

Human PAP ELISA Kit (ACPP) (ab267802) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PAP (ACPP) protein in cell culture supernatant, edta plasma, hep plasma, serum, urine, cit plasma, and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human PAP (ACPP) with 9.73 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

PAP (Prostatic Acid Phosphatase, EC:3.1.3.2), also known as ACPP is a non-specific tyrosine phosphatase that dephosphorylates a diverse number of substrates under acidic conditions including alkyl, aryl, and acyl orthophosphate monoesters and phosphorylated proteins. PAP expression is highest in prostate. PAP is biomarker of prostate cancer as its expression is increased in prostate cancer patients. The isoform 1 is secreted, the isoform 2 is a type I integral membrane protein of plasma membrane and lysosomes. The Isoform 2 function as tumor suppressor through dephosphorylation of ERBB2 and deactivation of MAPK-mediated signaling. The antibodies of this kit are designed to detect both isoforms.

#### 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 PAP (ACPP) Capture Antibody	1 x 600µl
10X Human PAP (ACPP) Detector Antibody	1 x 600µl

Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BI	1 x 6ml
Human PAP (ACPP) 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
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

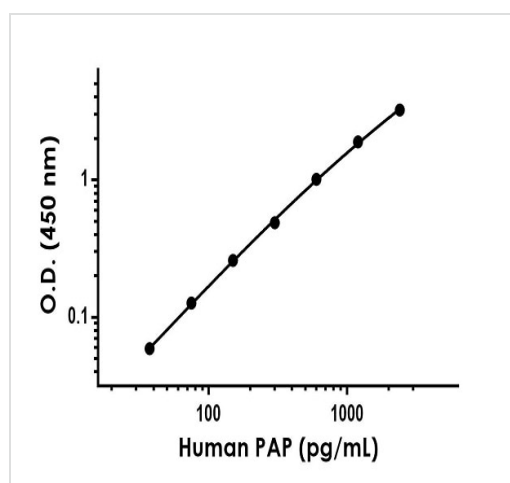
### Sequence similarities

Belongs to the histidine acid phosphatase family.

### Cellular localization

Secreted and Lysosome membrane. Predominantly localized in the plasma membrane but also detected in intracellular vesicles.

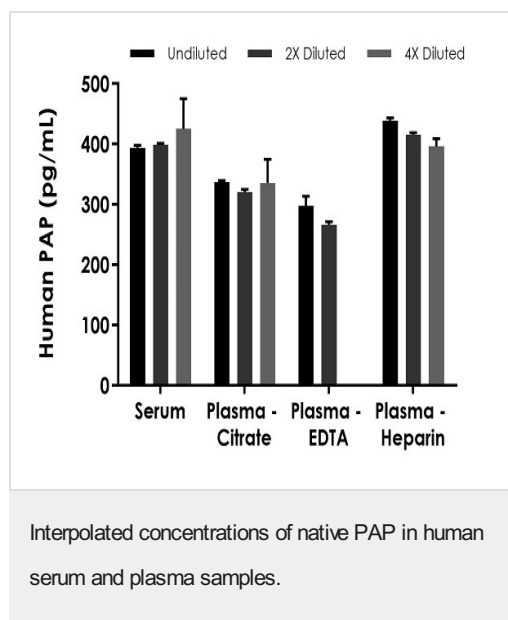
## Images



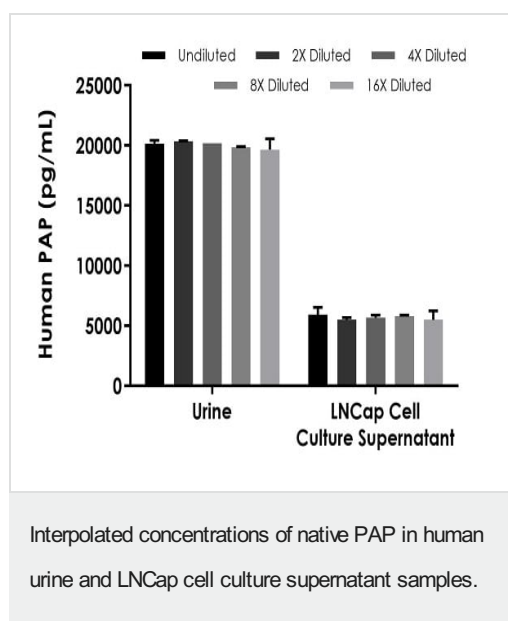
Example of human PAP standard curve in Sample Diluent NS.

The PAP standard curve was prepared as described in Section 10.

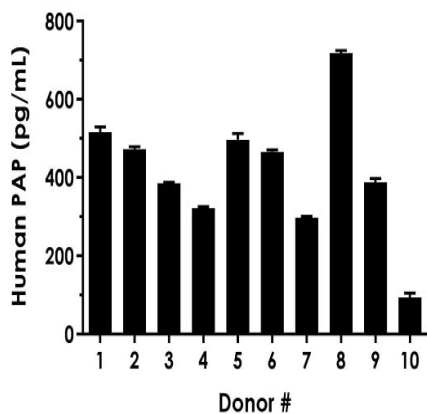
Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



The concentrations of PAP were measured in duplicates, interpolated from the PAP standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50% and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean PAP concentration was determined to be 406 pg/mL in neat serum, 331 pg/mL in neat plasma (citrate), 282 pg/mL in neat plasma (EDTA) and 417 pg/mL in neat plasma (heparin).

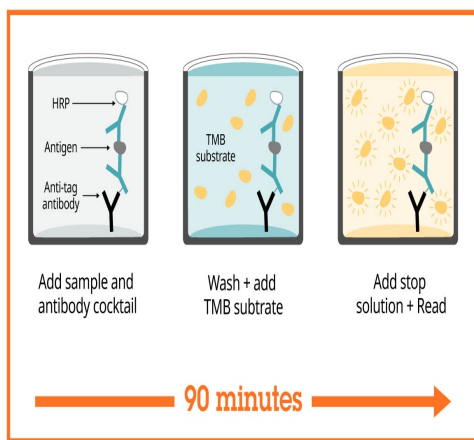


The concentrations of PAP were measured in duplicates, interpolated from the PAP standard curves and corrected for sample dilution. Undiluted samples are as follows: urine 10%, and LNCap cell culture supernatant 25%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean PAP concentration was determined to be 20,039 pg/mL in neat urine and 5,676 pg/mL in neat LNCap cell culture supernatant.



Serum from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean  $\pm$  SD,  $n=2$ ). The mean PAP concentration was determined to be 416 pg/mL with a range of 94 – 718 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 PAP ELISA Kit (ACPP)  
(ab267802)

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

**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 PAP ELISA Kit (ACPP)  
(ab267802)

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

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