

Human Lp-PLA2 ELISA Kit ab235643

Recombinant SimpleStep ELISA[®]

1 References 8 Images

Overview

Product name Human Lp-PLA2 ELISA Kit

Detection method Colorimetric

Precision					Intra-assay
	Sample	n	Mean	SD	CV%
	Serum	5			2.5%

					Inter-assay
	Sample	n	Mean	SD	CV%
	Serum	3			7.4%

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

Assay type Sandwich (quantitative)

Sensitivity 45 pg/ml

Range 0.16 ng/ml - 10 ng/ml

Recovery			Sample specific recovery
	Sample type	Average %	Range
	Serum	95	93% - 97%
	Cell culture media	101	99% - 102%
	Hep Plasma	96	93% - 97%
	EDTA Plasma	81	72% - 88%
	Cit plasma	98	97% - 100%

Assay time 1h 30m

Assay duration One step assay

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

Human Lp-PLA2 ELISA Kit (ab235643) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Lp-PLA2 protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Lp-PLA2 with 45 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.

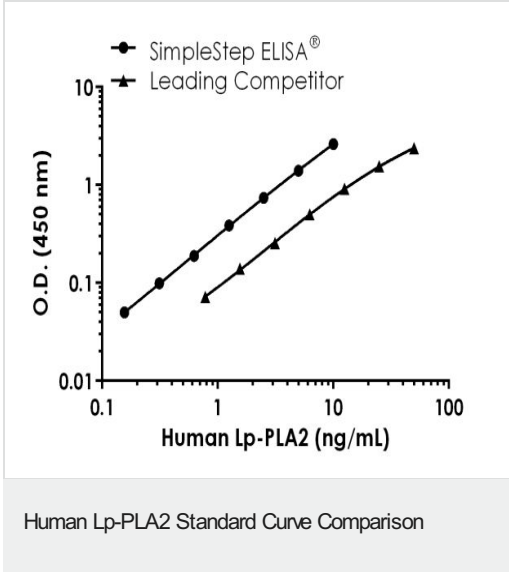
Components	1 x 96 tests	10 x 96 tests
10X Human Lp-PLA2 Capture Antibody	1 x 600µl	1 x 6000µl
10X Human Lp-PLA2 Detector Antibody	1 x 600µl	1 x 6000µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml
Antibody Diluent 4BI	1 x 6ml	10 x 6ml
Human Lp-PLA2 Lyophilized Recombinant Protein	2 vials	2 x 10 vials
Plate Seals	1 unit	1 x 10 units
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units
Stop Solution	1 x 12ml	1 x 120ml
TMB Development Solution	1 x 12ml	1 x 120ml

Function

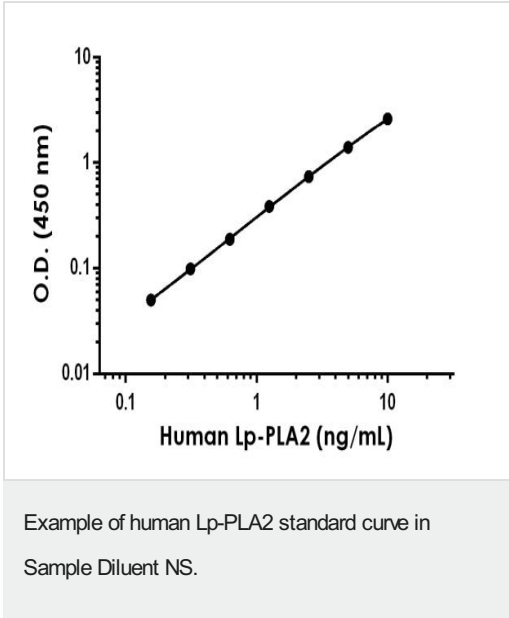
Modulates the action of platelet-activating factor (PAF) by hydrolyzing the sn-2 ester bond to yield the biologically inactive lyso-PAF. Has a specificity for substrates with a short residue at the sn-2

	position. It is inactive against long-chain phospholipids.
Tissue specificity	Plasma.
Involvement in disease	Platelet-activating factor acetylhydrolase deficiency Asthma Atopic hypersensitivity
Sequence similarities	Belongs to the AB hydrolase superfamily. Lipase family.
Cellular localization	Secreted, extracellular space.

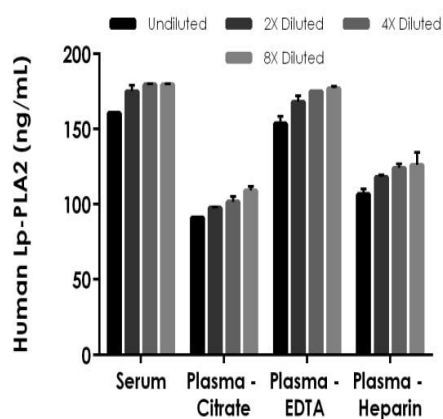
Images



Standard Curve comparison between Human Lp-PLA2 SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.

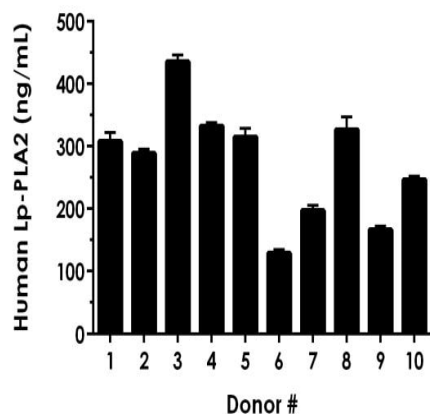


Background-subtracted data values (mean +/- SD) are graphed.



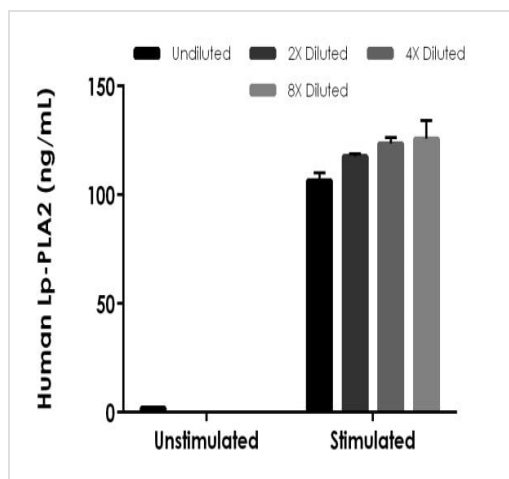
Interpolated concentrations of native Lp-PLA2 in human serum, plasma and cell culture supernatant samples.

The concentrations of Lp-PLA2 were measured in duplicates, interpolated from the Lp-PLA2 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:50, plasma (citrate) 1:50, plasma (EDTA) 1:50, and plasma (heparin) 1:50. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean Lp-PLA2 concentration was determined to be 175 ng/mL in serum, 102 ng/mL in plasma (citrate), 168 ng/mL in plasma (EDTA) and 118 ng/mL in plasma (heparin).



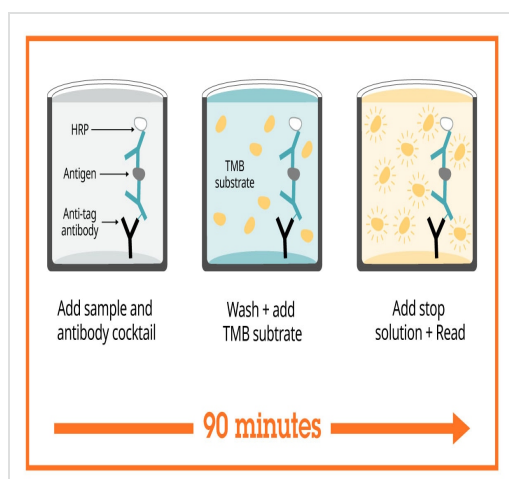
Serum from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean Lp-PLA2 concentration was determined to be 275 ng/mL with a range of 129 – 436 ng/mL.



Interpolated concentrations of native Lp-PLA2 in human cell culture supernatant samples.

The concentrations of Lp-PLA2 were measured in duplicates, interpolated from the Lp-PLA2 standard curves and corrected for sample dilution. Undiluted samples are as follows: Unstimulated 10%, Stimulated 10%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean Lp-PLA2 concentration was determined to be 2.1 ng/mL in unstimulated PBMC cell culture supernatant and 9.3 ng/mL in PHA-M Stimulated cell culture supernatant.



Sandwich ELISA - Human Lp-PLA2 ELISA Kit (ab235643)

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.

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 Lp-PLA2 ELISA Kit
(ab235643)

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 Lp-PLA2 ELISA Kit
(ab235643)

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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