abcam

Product datasheet

Human Annexin V ELISA Kit ab223863

Recombinant SimpleStep ELISA

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Overview

Product name Human Annexin V ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Supernatant	5			3.8%

Inter-assay

Sample	n	Mean	SD	CV%
Supernatant	3			10.8%

Sample type Cell culture supernatant, Urine, Cell culture extracts, Tissue Extracts

Assay type Sandwich (quantitative)

Sensitivity 23.4 pg/ml

Range 46.9 pg/ml - 3000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Urine	98	96% - 101%
Cell culture extracts	90	86% - 96%
Tissue Extracts	103	100% - 105%
Cell culture media	107	99% - 114%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

Human Annexin V ELISA Kit (ab223863) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Annexin V protein in cell culture extracts, cell culture supernatant, tissue extracts, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Annexin V with 23.4 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

Annexin V is an anticoagulant protein that acts as an indirect inhibitor of the thromboplastin-specific complex, which is involved in the blood coagulation cascade. Annexin V is a 36 kDa protein that binds to phospholipids in a calcium-dependent manner. Annexin V preferentially binds phosphatidylserine, in competition with prothrombin, leading to inhibition of blood coagulation at sites of injury preceding contact between lipid components and coagulation factors that initiate thrombosis. The ability of Annexin V to bind to phosphatidylserine makes it an attractive reagent in detecting apoptotic cells.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

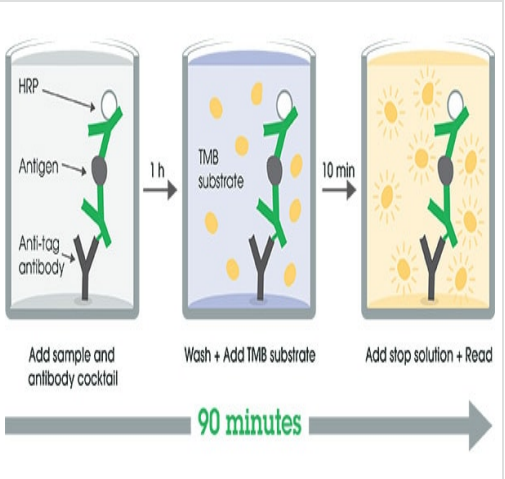
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BI	1 x 6ml
10X Human Annexin V Capture Antibody	1 x 600µl

Components	1 x 96 tests
10X Human Annexin V Detector Antibody	1 x 600µl
Human Annexin V 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

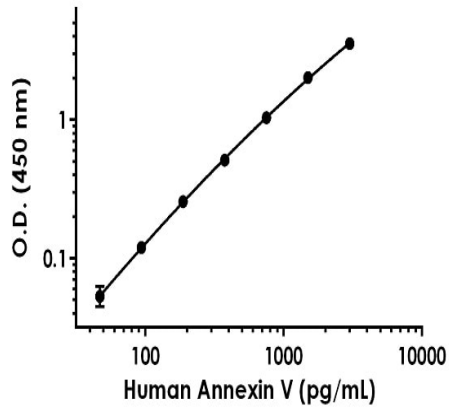
Function	This protein is an anticoagulant protein that acts as an indirect inhibitor of the thromboplastin-specific complex, which is involved in the blood coagulation cascade.
Involvement in disease	Pregnancy loss, recurrent, 3
Sequence similarities	Belongs to the annexin family. Contains 4 annexin repeats.
Domain	The [IL]-x-C-x-x-[DE] motif is a proposed target motif for cysteine S-nitrosylation mediated by the iNOS-S100A8/A9 transnitrosylase complex. A pair of annexin repeats may form one binding site for calcium and phospholipid.
Post-translational modifications	S-nitrosylation is induced by interferon-gamma and oxidatively-modified low-density lipoprotein (LDL(ox)) possibly implicating the iNOS-S100A8/9 transnitrosylase complex.

Images



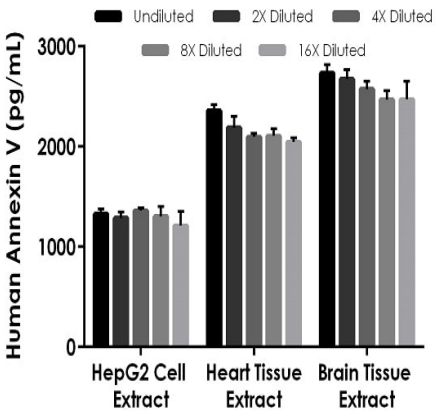
Other - Human Annexin V ELISA Kit (ab223863)

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.



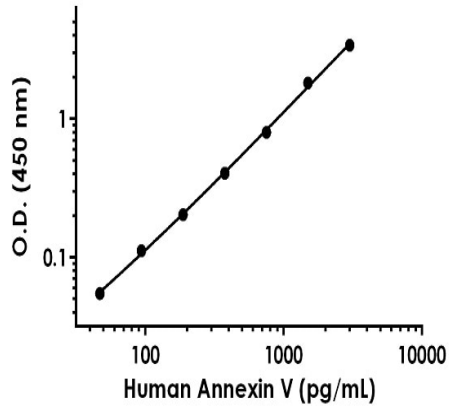
Example of human Annexin V standard curve in Sample Diluent NS + Enhancer.

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



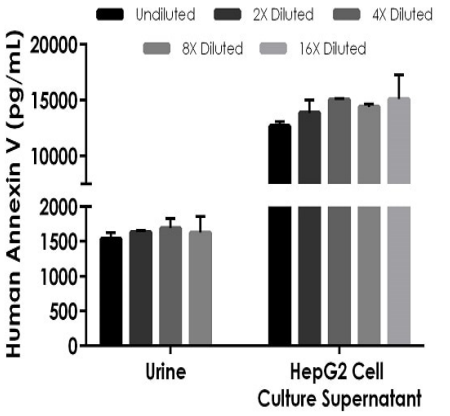
Interpolated concentrations of native Annexin V in human HepG2 cell extract.

Interpolated concentrations of native Annexin V in human HepG2 cell extract based on a 1 µg/mL extract load and heart and brain tissue extract samples based on a 2 µg/mL extract load. The concentrations of Annexin V were measured in duplicate and interpolated from the Annexin V standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Annexin V concentration was determined to be 1299 pg/mL in HepG2 cell extract, 2159 pg/mL in human heart tissue extract, and 2585 pg/mL in human brain tissue extract.



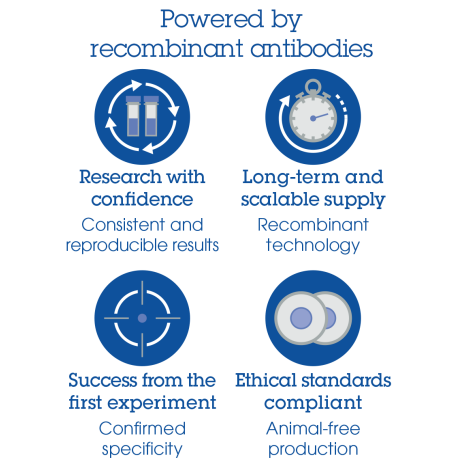
Example of human Annexin V standard curve in 1X Cell Extraction Buffer PTR.

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



Interpolated concentrations of native Annexin V in human urine and HepG2 cell culture supernatant (5 days) samples.

The concentrations of Annexin V were measured in duplicates, interpolated from the Annexin V standard curves and corrected for sample dilution. Undiluted samples are as follows: urine 20% and HepG2 cell culture supernatant 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Annexin V concentration was determined to be 1601 pg/mL in neat urine and 14,220 pg/mL in neat HepG2 Cell Culture Supernatant.



Sandwich ELISA - Human Annexin V ELISA Kit (ab223863)

To learn more about the advantages of recombinant antibodies see **here**.

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