

Human IL-15 ELISA Kit ab218266

Recombinant SimpleStep ELISA

1 References 9 Images

Overview

Product name	Human IL-15 ELISA Kit			
Detection method	Colorimetric			
Precision	Intra-assay			
	Sample	n	Mean	SD
	Overall	5		CV%
				5.8%
	Inter-assay			
	Sample	n	Mean	SD
	Overall	3		CV%
				13%
Sample type	Cell culture supernatant, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma			
Assay type	Sandwich (quantitative)			
Sensitivity	1.1 pg/ml			
Range	3.9 pg/ml - 250 pg/ml			
Recovery	Sample specific recovery			

Sample type	Average %	Range
Serum	90	86% - 94%
Cell culture extracts	95	94% - 97%
Tissue Extracts	100	97% - 102%
Cell culture media	110	103% - 118%
Hep Plasma	92	90% - 95%
EDTA Plasma	95	92% - 97%

Sample type	Average %	Range
Cit plasma	97	94% - 103%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Human

Does not react with: Cow

Product overview

Human IL-15 ELISA Kit (ab218266) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-15 protein in cell culture extracts, cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human IL-15 with 1.1 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

IL-15 (114 amino acids) is a cytokine that regulates T and natural killer cell activation and proliferation. It has a predicted molecular mass of approximately 12.5 kDa. IL-15 was initially isolated from the simian kidney epithelial cell line CV1/EBNA. It has also been isolated from mouse and human cell sources. The cytokines IL-15 and IL-2 share many biological properties and stimulatory activities (T, B, and NK cells). There is no sequence homology between IL-15 and IL-2, though computer modeling indicates both possess a four alpha helical bundle structure. IL-15 competes for binding sites with IL-2, as both IL-2 and IL-15 stimulate the growth of cells through the IL-2 receptor. IL-15 mRNA is expressed in many cell types and tissues including adherent peripheral blood mononuclear cells, fibroblasts, and epithelial cells, monocytes, placenta, and skeletal muscle.

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

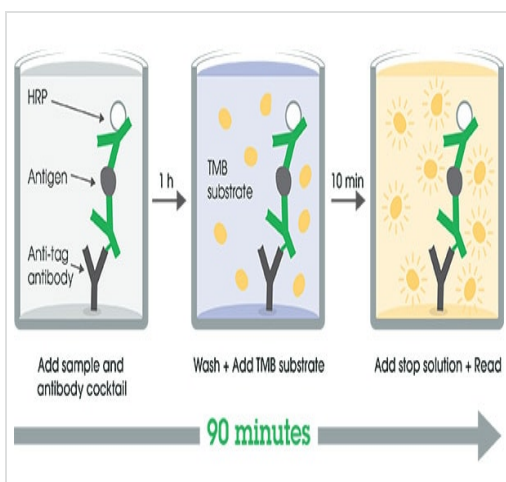
Storage instructions

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

Components	1 x 96 tests	1 x 96 tests
10X Human IL-15 Capture Antibody	1 x 600µl	1 x 600µl
10X Human IL-15 Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml	1 x 10ml
Antibody Diluent CPI2	1 x 6ml	1 x 6ml
Human IL-15 Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NBP	1 x 20ml	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

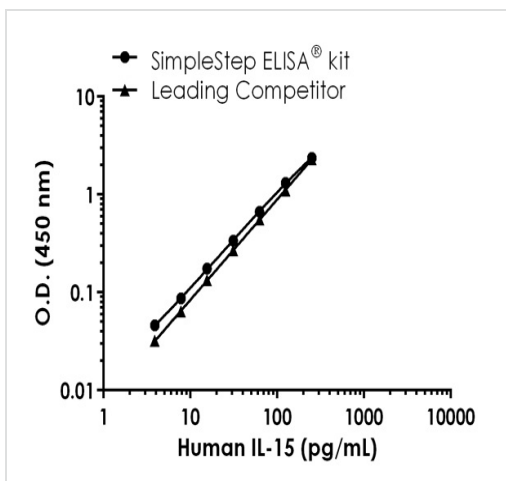
Function	Cytokine that stimulates the proliferation of T-lymphocytes. Stimulation by IL-15 requires interaction of IL-15 with components of IL-2R, including IL-2R beta and probably IL-2R gamma but not IL-2R alpha.
Tissue specificity	Most abundant in placenta and skeletal muscle. It is also detected in the heart, lung, liver and kidney. IL15-S21AA is preferentially expressed in tissues such as testis and thymus.
Sequence similarities	Belongs to the IL-15/IL-21 family.
Cellular localization	Secreted and Cytoplasm. Nucleus. IL15-S21AA is not secreted, but rather is stored intracellularly, appearing in the nucleus and cytoplasmic components.

Images



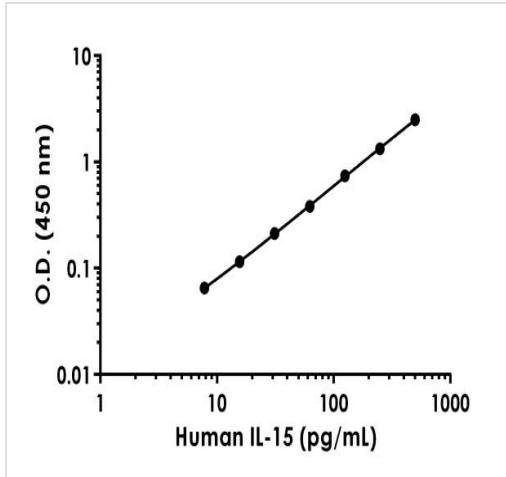
Other - Human IL-15 ELISA Kit (ab218266)

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.



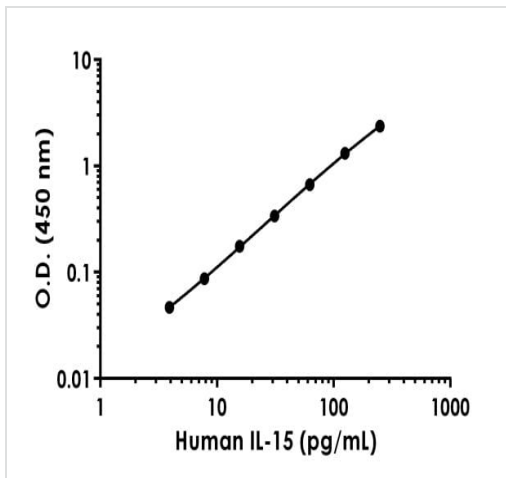
Human IL-15 standard curve comparison data

Standard curve comparison between mouse IL-15 SimpleStep ELISA® kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



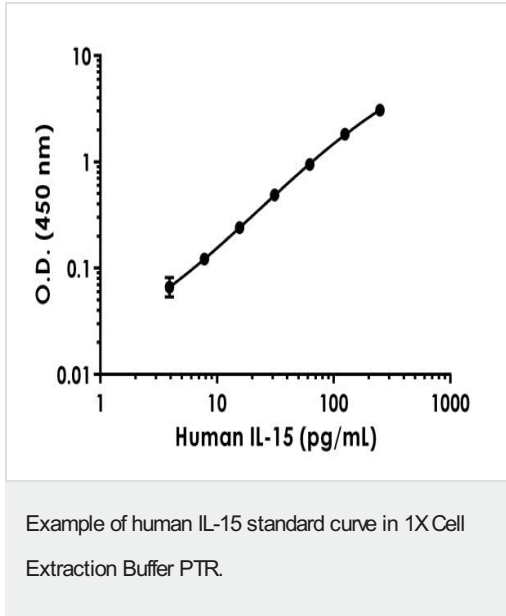
Background-subtracted data values (mean \pm SD) are graphed.

Example of human IL-15 standard curve in Sample Diluent NBP.

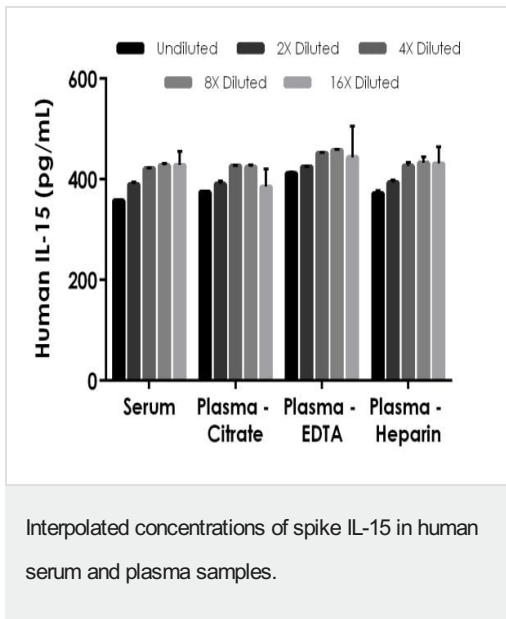


Background-subtracted data values (mean \pm SD) are graphed.

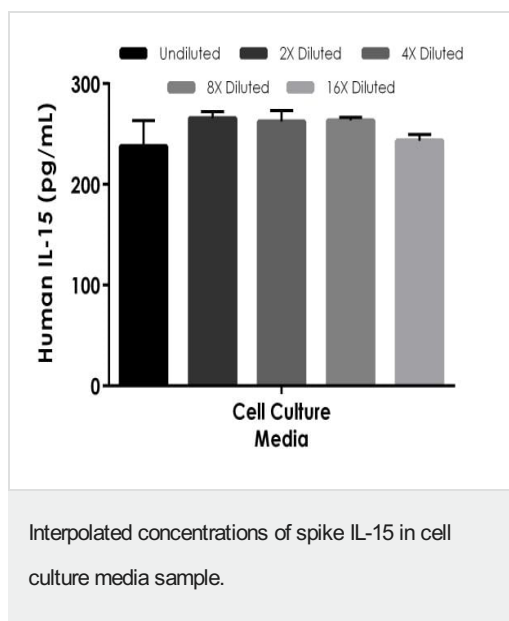
Example of human IL-15 standard curve in Sample Diluent NS.



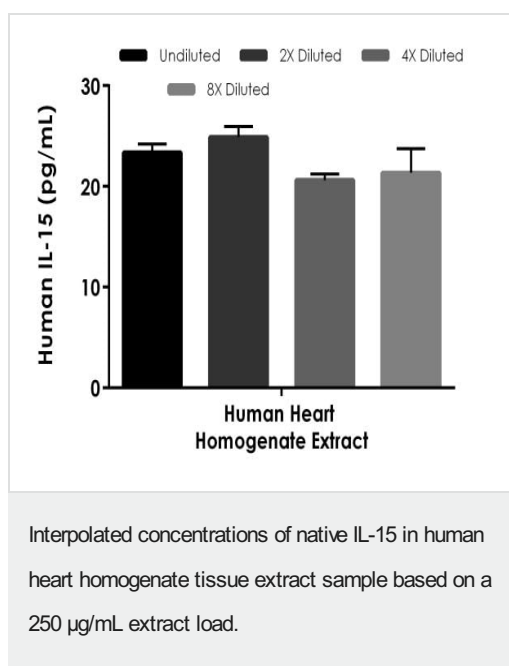
Background-subtracted data values (mean \pm SD) are graphed.



The concentrations of IL-15 were measured in duplicates, interpolated from the IL-15 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 concentrations of IL-15 were measured in duplicates, interpolated from the IL-15 standard curves and corrected for sample dilution. Undiluted samples are as follows: cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2).



The concentrations of IL-15 were measured in duplicate and interpolated from the IL-15 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean IL-15 concentration was determined to be 22.5 pg/mL in human heart homogenate tissue extract.

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 IL-15 ELISA Kit
(ab218266)

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

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors