

Human IL1R1 ELISA Kit ab260072

Recombinant SimpleStep ELISA

7 Images

Overview

Product name	Human IL1R1 ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Serum	8			4.1%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Serum	3			1.8%
Sample type	Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma				
Assay type	Sandwich (quantitative)				
Sensitivity	99.56 pg/ml				
Range	187.5 pg/ml - 12000 pg/ml				
Recovery	Sample specific recovery				
	Sample type		Average %		Range
	Serum		106		103% - 110%
	Cell culture media		117		116% - 119%
	Hep Plasma		114		111% - 119%
	EDTA Plasma		103		102% - 103%
	Cit plasma		113		111% - 115%
Assay time	1h 30m				
Assay duration	One step assay				

Species reactivity**Reacts with:** Human**Does not react with:** Cow**Product overview**

Human IL1R1 ELISA Kit (ab260072) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL1R1 protein in cell culture media, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human IL1R1 with 99.56 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-1R1, Interleukin 1 receptor, type I, is a receptor for interleukin 1 alpha, beta, and their agonist. This enzyme is critical in the regulation of pro-inflammatory responses in response to tissue damage. Upon binding of its ligand, IL-1R1 dimerizes with IRAK-1 and 2 which leads to phosphorylation cascades and eventually transcription of anti-inflammatory genes. This kit targets the extracellular domain of IL-1R1.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

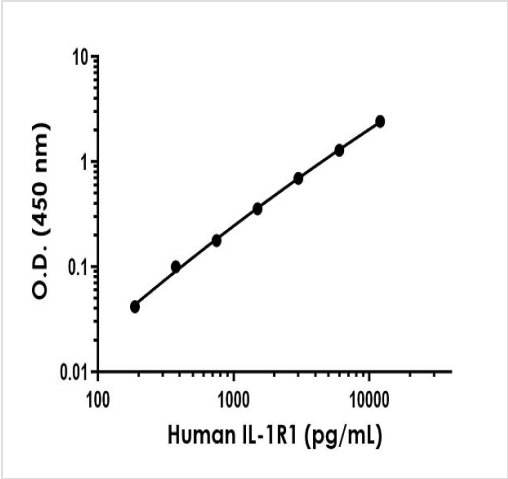
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human IL1R1 Capture Antibody	1 x 600µl
10X Human IL1R1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human IL1R1 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

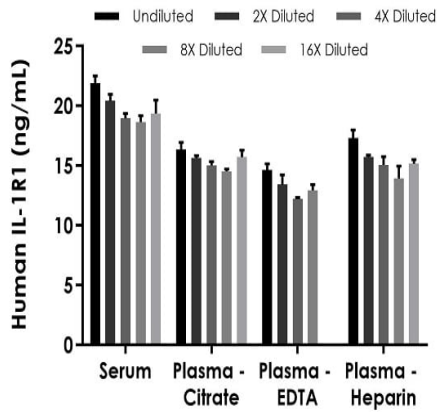
Function	Receptor for interleukin-1 alpha (IL-1A), beta (IL-1B), and interleukin-1 receptor antagonist protein (IL-1RA). Binding to the agonist leads to the activation of NF-kappa-B. Signaling involves formation of a ternary complex containing IL1RAP, TOLLIP, MYD88, and IRAK1 or IRAK2.
Sequence similarities	<p>Belongs to the interleukin-1 receptor family.</p> <p>Contains 3 Ig-like C2-type (immunoglobulin-like) domains.</p> <p>Contains 1 TIR domain.</p>
Cellular localization	Membrane.

Images



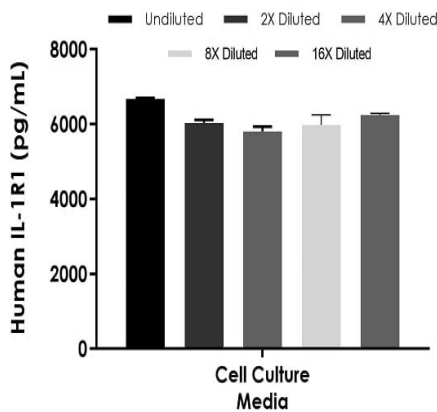
Example of human IL1R1 standard curve in Sample Diluent NS.

The IL1R1 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.



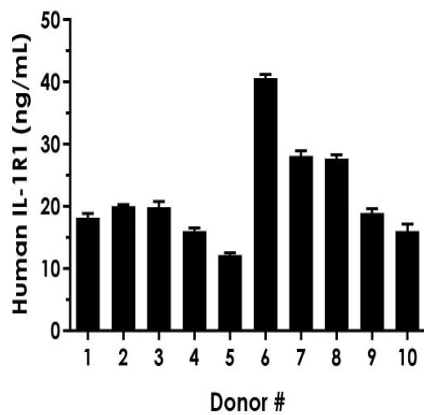
Interpolated concentrations of native IL1R1 in human serum and plasma samples.

The concentrations of IL1R1 were measured in duplicate, interpolated from the IL1R1 standard curves, and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 25%, plasma (EDTA) 12.5% and plasma (heparin) 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean IL1R1 concentration was determined to be 20 ng/mL in serum, 16 ng/mL in plasma (citrate), 14 ng/mL in plasma (EDTA), and 15 ng/mL in plasma (heparin).



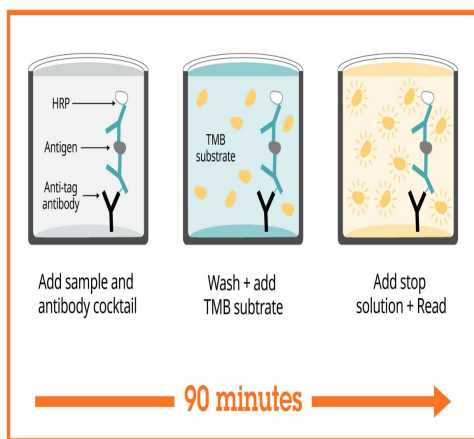
Interpolated concentrations of spike IL1R1 in human cell culture media samples.

The concentrations of IL1R1 were measured in duplicates, interpolated from the IL1R1 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).



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

Interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean IL1R1 concentration was determined to be 22 ng/mL with a range of 12 – 41 ng/mL.



Sandwich ELISA - Human IL1R1 ELISA Kit
(ab260072)

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 IL1R1 ELISA Kit
(ab260072)

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 IL1R1 ELISA Kit
(ab260072)

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

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