

Product datasheet

Monkey IL-1 α ELISA Kit ab269550

Recombinant SimpleStep ELISA

[4 Images](#)

Overview

Product name Monkey IL-1a ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			6%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			8.36%

Sample type Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 12.21 pg/ml

Range 15.63 pg/ml - 1000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	104	97% - 118%
Hep Plasma	110	103% - 118%
EDTA Plasma	107	104% - 112%
Cit plasma	100	93% - 103%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Monkey

Product overview

Monkey IL-1a ELISA Kit (ab269550) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-1a protein in edta plasma, hep plasma, serum, and cit plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Monkey IL-1a with 12.21 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

Signaling of IL-1 via its receptor, results in recruitment of the IL-1 R accessory protein (IL-1RAcP). This leads to a series of phosphorylation and ubiquitination events that ultimately activate the nuclear factor κ B (NF- κ B) and signal via the c-Jun N-terminal kinase (JNK) and the p38 mitogen-activated protein kinase (MAPK) pathways. These signaling events generate local and systemic responses that mediate acute phase inflammation, a critical host response to injury and infection. Under these circumstances, IL-1 induces fever, pain sensitivity, vasodilation, hypotension and slow wave sleep. All these responses are essential processes geared towards the re-establishment of tissue homeostasis. However, prolonged and inappropriate IL-1 induction has been shown to be associated with sepsis, rheumatoid arthritis, inflammatory bowel disease, acute and chronic myelogenous leukemia, insulin-dependent diabetes mellitus and atherosclerosis.

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 Monkey IL-1a Capture Antibody	1 x 600 μ l
10X Monkey IL-1a Detector Antibody	1 x 600 μ l
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Monkey IL-1a Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

Components	1 x 96 tests
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

Produced by activated macrophages, IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells.

Sequence similarities

Belongs to the IL-1 family.

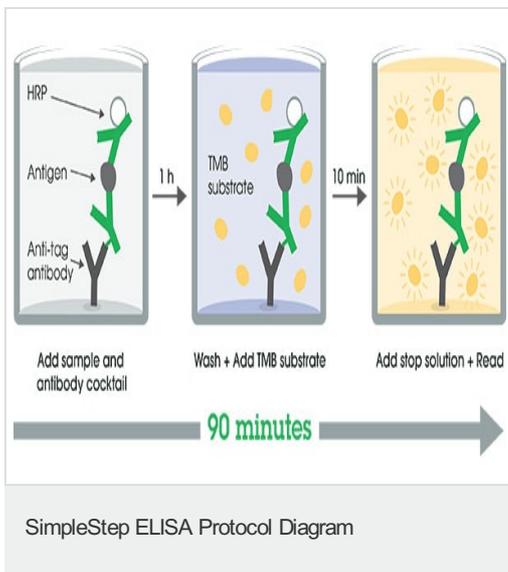
Domain

The similarity among the IL-1 precursors suggests that the amino ends of these proteins serve some as yet undefined function.

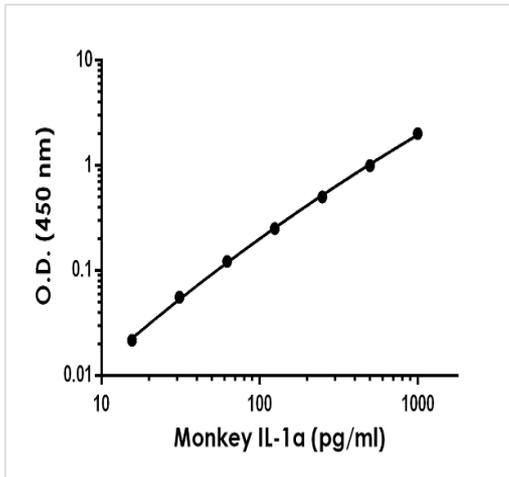
Cellular localization

Secreted. The lack of a specific hydrophobic segment in the precursor sequence suggests that IL-1 is released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins.

Images

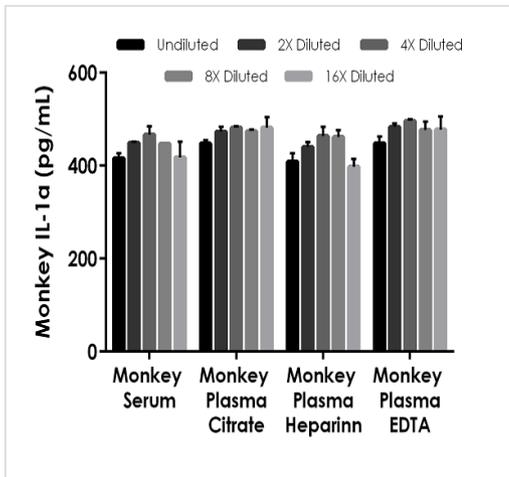


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Example of monkey IL-1α standard curve in Sample Diluent NS.

The IL-1α 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 spike IL-1α in monkey serum and plasma samples.

The concentrations of IL-1α were measured in duplicates, interpolated from the IL-1α standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 25%, plasma (heparin) 25% and plasma (EDTA) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

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recombinant antibodies



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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 - Monkey IL-1a ELISA Kit
(ab269550)

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

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