

Product datasheet

Rat IL-6 ELISA Kit ab234570

Recombinant SimpleStep ELISA

★★★★☆ [2 Abreviews](#) [42 References](#) [8 Images](#)

Overview

Product name Rat IL-6 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Spiked media	5			2.3%

Inter-assay

Sample	n	Mean	SD	CV%
Spiked media	3			3.8%

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

Assay type Sandwich (quantitative)

Sensitivity 43 pg/ml

Range 125 pg/ml - 8000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	91	82% - 99%
Serum	98	86% - 112%
Hep Plasma	81	79% - 84%
EDTA Plasma	94	93% - 96%
Cit plasma	86	80% - 90%

Assay time 1h 30m

Assay duration One step assay

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

Rat IL-6 ELISA Kit (ab234570) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-6 protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Rat IL-6 with 43 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)

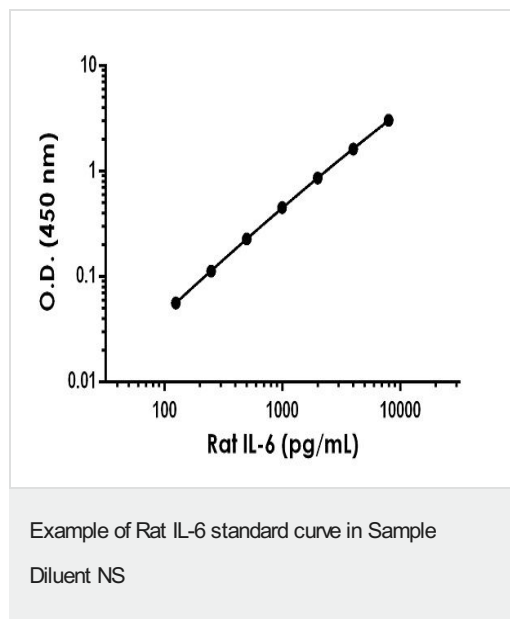
Properties**Storage instructions**

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

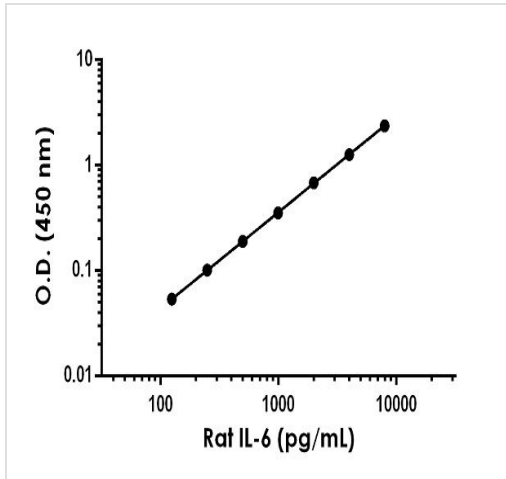
Components	1 x 96 tests
10X Rat IL-6 Capture Antibody	1 x 600µl
10X Rat IL-6 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BR	1 x 6ml
Plate Seals	1 unit
Rat IL-6 Lyophilized Recombinant Protein	2 vials
Sample Diluent NBS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	Cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response. Plays an essential role in the final differentiation of B-cells into Ig-secreting cells. Involved in lymphocyte and monocyte differentiation. It induces myeloma and plasmacytoma growth and induces nerve cells differentiation. Acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. Also acts as a myokine. It is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance.
Involvement in disease	Genetic variations in IL6 are associated with susceptibility to rheumatoid arthritis systemic juvenile (RASJ) [MIM:604302]. An inflammatory articular disorder with systemic-onset beginning before the age of 16. It represents a subgroup of juvenile arthritis associated with severe extraarticular features and occasionally fatal complications. During active phases of the disorder, patients display a typical daily spiking fever, an evanescent macular rash, lymphadenopathy, hepatosplenomegaly, serositis, myalgia and arthritis. Note=A IL6 promoter polymorphism is associated with a lifetime risk of development of Kaposi sarcoma in HIV-infected men.
Sequence similarities	Belongs to the IL-6 superfamily.
Post-translational modifications	N- and O-glycosylated.
Cellular localization	Secreted.

Images

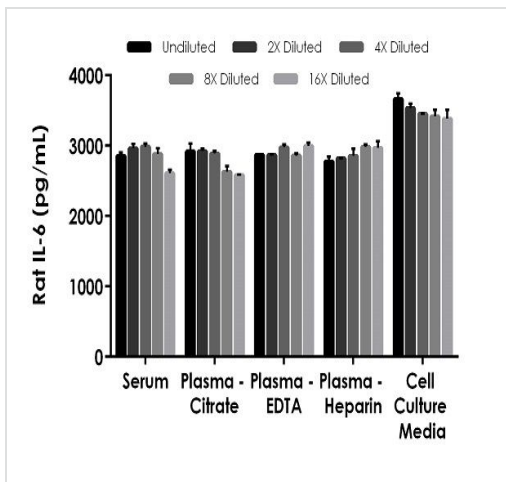


Background-subtracted data values (mean +/- SD) are graphed.



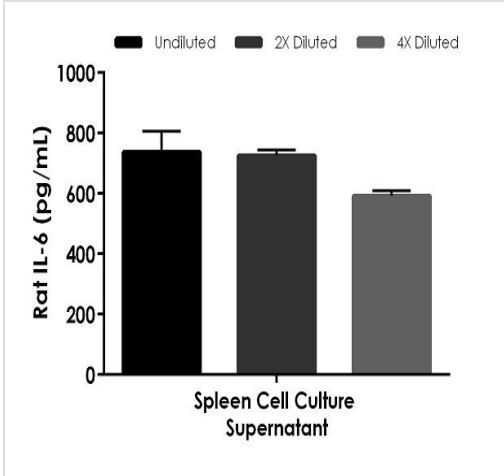
Background-subtracted data values (mean +/- SD) are graphed.

Example of Rat IL-6 standard curve in Sample Diluent NBS



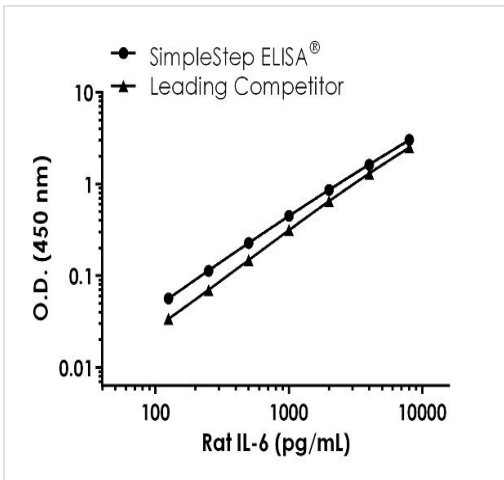
The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (citrate) 50%, plasma (EDTA) 50%, plasma (heparin) 50%, and cell culture media 50%.

Interpolated concentrations of spike IL-6 in Rat serum and plasma samples



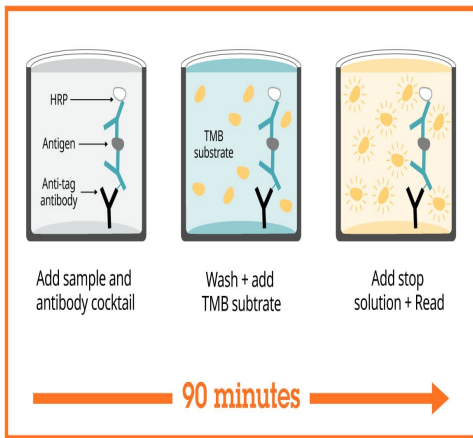
Interpolated concentrations of native IL-6 in Rat spleen cell culture supernatant sample

The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: spleen supernatant 50%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean IL-6 concentration was determined to be 665 pg/mL in spleen supernatant.



Rat IL-6 competitor standard curve comparison

Standard curve comparison between human FGF19 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



Sandwich ELISA - Rat IL-6 ELISA Kit (ab234570)

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

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Sandwich ELISA - Rat IL-6 ELISA Kit (ab234570)

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 - Rat IL-6 ELISA Kit (ab234570)

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

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