

Recombinant SimpleStep ELISA®

21 References 7 Images

Overview

Detection method Colorimetric

Intra-assay

Sample	n	Mean	SD	CV%
Overall	8			5.6%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			3.4%

Range	31.3 pg/ml - 2000 pg/ml
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Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	93	84% - 109%
Serum	94	93% - 94%
Cit plasma	86	85% - 89%

Does not react with: Cow

Product overview Rat IL-10 ELISA Kit (ab214566) is a single-wash 90 min sandwich ELISA designed for the

quantitative measurement of IL-10 protein in cell culture supernatant, cit plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Rat IL-10 with 4.89 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	Interleukin-10 is an anti-inflammatory cytokine involved in inhibition of a variety of other cytokines, including IFN-gamma, TNF, IL-2 and GM-CSF.
Platform	Pre-coated microplate (12 x 8 well strips)

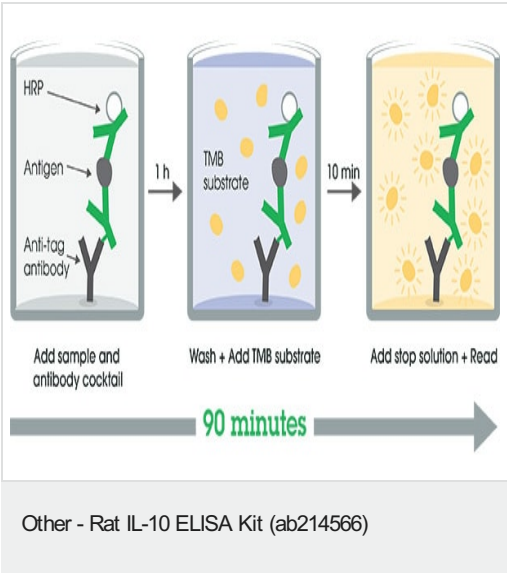
Properties

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

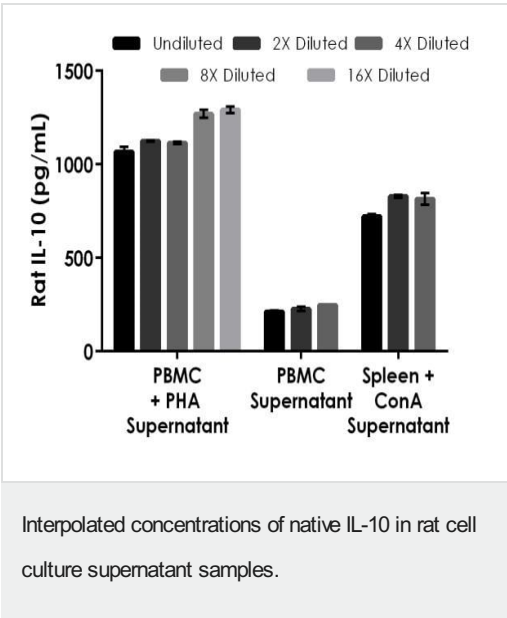
Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BR	1 x 6ml
Plate Seals	1 unit
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
10X Rat IL-10 Capture Antibody	1 x 600µl
10X Rat IL-10 Detector Antibody	1 x 600µl
Rat IL-10 Lyophilized Recombinant Protein	2 vials
Sample Diluent 25BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	Inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-3, TNF and GM-CSF produced by activated macrophages and by helper T-cells.
Tissue specificity	Produced by a variety of cell lines, including T-cells, macrophages, mast cells and other cell types.
Sequence similarities	Belongs to the IL-10 family.
Cellular localization	Secreted.

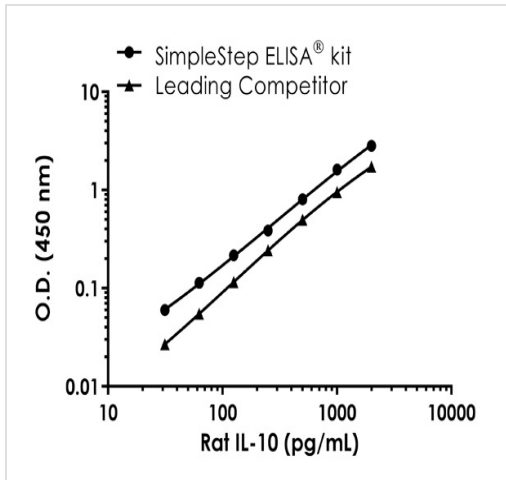
Images



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.

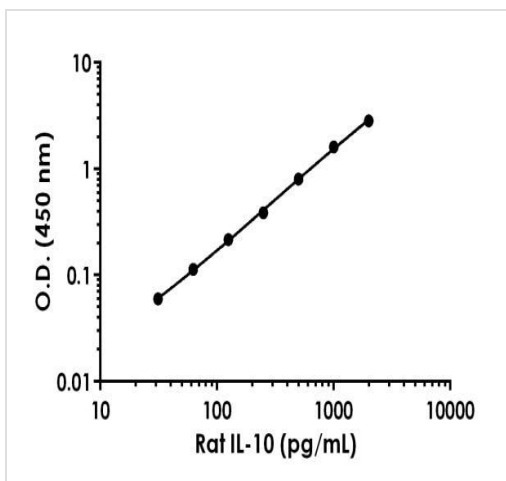


The concentrations of IL-10 were measured in duplicates, interpolated from the IL-10 standard curves and corrected for sample dilution. Undiluted samples are as follows: rat PBMC stimulated with PHA (10 µg/mL, 48 hours) supernatant 50%, unstimulated PBMC supernatant 100%, and spleen stimulated with concanavalin A (5 µg/mL, 48 hours) supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-10 concentration was determined to be 1,174 pg/mL in PBMC stimulated with PHA supernatant, 230 pg/mL in unstimulated PBMC supernatant and 789 pg/mL in spleen stimulated with concanavalin A supernatant.



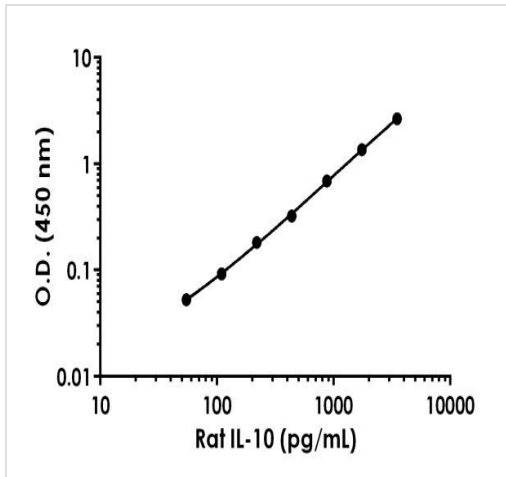
Rat IL-10 standard curve comparison data

Standard curve comparison between rat IL-10 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



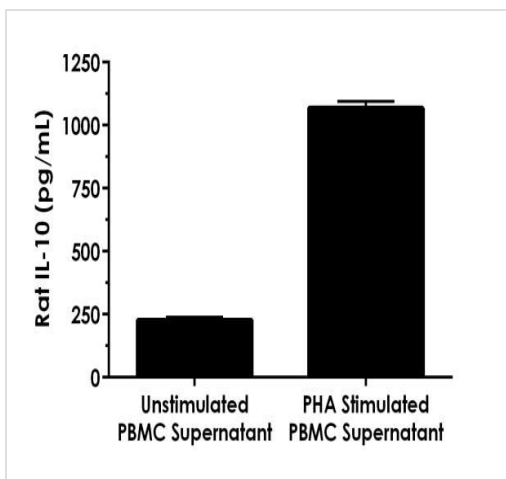
Example of rat IL-10 standard curve in Sample Diluent NS.

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



Example of rat IL-10 standard curve in Sample Diluent 25BS.

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



Rat peripheral blood mononuclear cells were cultured unstimulated or stimulated with 10 μ g/mL PHA.

Conditioned media was harvested after 48 hours. IL-10 was measured in 50% unstimulated and PHA stimulated PBMC supernatant. The concentrations of IL-10 were measured in duplicate, interpolated from the IL-1 β standard curves and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean IL-10 concentration was determined to be 1,068 pg/mL in PHA stimulated PBMC supernatant and 227 pg/mL in unstimulated PBMC supernatant.

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 - Rat IL-10 ELISA Kit (ab214566)

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"

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