

Product datasheet

Rat IL-17F ELISA Kit ab239423

Recombinant SimpleStep ELISA

8 Images

Overview

Product name Rat IL-17F ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

| Sample | n | Mean | SD | CV% |
|------------|---|------|----|------|
| splenocyte | 8 | | | 2.3% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|------------|---|------|----|------|
| splenocyte | 3 | | | 2.1% |

Sample type

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

Assay type

Sandwich (quantitative)

Sensitivity

2 pg/ml

Range

9.4 pg/ml - 800 pg/ml

Recovery

Sample specific recovery

| Sample type | Average % | Range |
|--------------------------|-----------|-------------|
| Cell culture supernatant | 104 | 91% - 115% |
| Serum | 89 | 87% - 92% |
| Cell culture media | 102 | 97% - 108% |
| Hep Plasma | 90 | 87% - 95% |
| EDTA Plasma | 122 | 112% - 130% |
| Cit plasma | 107 | 106% - 108% |

| | |
|---------------------------|-------------------------|
| Assay time | 1h 30m |
| Assay duration | One step assay |
| Species reactivity | Reacts with: Rat |

Product overview

Rat IL-17F ELISA Kit (ab239423) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-17F protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Rat IL-17F with 2 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-17F Capture Antibody | 1 x 600µl |
| 10X Rat IL-17F Detector Antibody | 1 x 600µl |
| 10X Wash Buffer PT (ab206977) | 1 x 20ml |
| Antibody Diluent 5BR | 1 x 6ml |
| Plate Seals | 1 unit |
| Rat IL-17F Lyophilized Recombinant Protein | 2 vials |
| Sample Diluent 50BP | 1 x 20ml |
| Sample Diluent NS (ab193972) | 1 x 50ml |
| SimpleStep Pre-Coated 96-Well Microplate (ab206978) | 1 unit |
| Stop Solution | 1 x 12ml |

| Components | 1 x 96 tests |
|--------------------------|--------------|
| TMB Development Solution | 1 x 12ml |

Function

Ligand for IL17RA and IL17RC (PubMed:17911633). The heterodimer formed by IL17A and IL17F is a ligand for the heterodimeric complex formed by IL17RA and IL17RC (PubMed:18684971). Involved in stimulating the production of other cytokines such as IL6, IL8 and CSF2, and in regulation of cartilage matrix turnover (PubMed:11591732, PubMed:11591768, PubMed:11574464). Also involved in stimulating the proliferation of peripheral blood mononuclear cells and T-cells and in inhibition of angiogenesis (PubMed:11591732). Plays a role in the induction of neutrophilia in the lungs and in the exacerbation of antigen-induced pulmonary allergic inflammation.

Tissue specificity

Expressed in activated, but not resting, CD4+ T-cells and activated monocytes.

Involvement in disease

Candidiasis, familial, 6

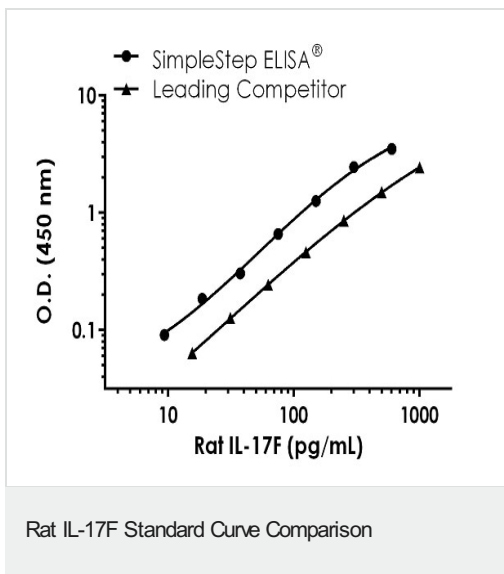
Sequence similarities

Belongs to the IL-17 family.

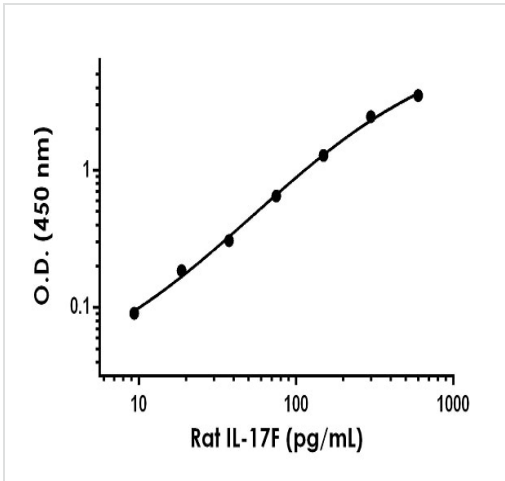
Cellular localization

Secreted.

Images

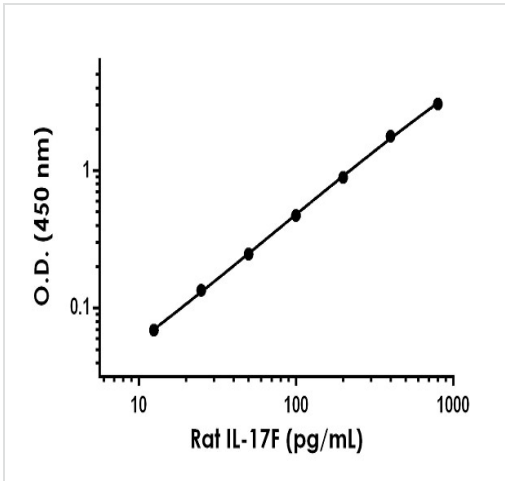


Standard Curve comparison between Rat IL-17F SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



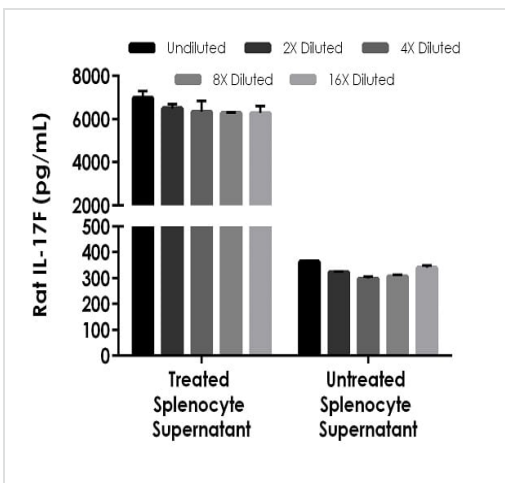
Example of rat IL-17F standard curve in Sample Diluent NS.

The IL-17F 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.



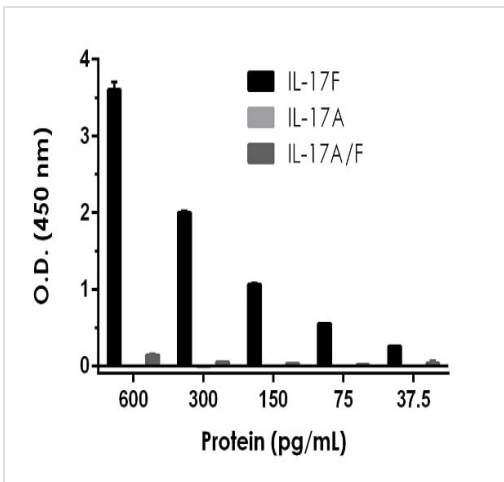
Example of rat IL-17F standard curve in Sample Diluent 50BP.

The IL-17F 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 IL-17F in rat treated and untreated rat splenocyte cell culture supernatant samples.

Rat splenocyte cells were cultured in the presence (treated) or absence (untreated) of 10 ng/mL TPA and 10 ng/mL rat IL-1a for four days. The concentrations of IL-17F were measured in duplicates, interpolated from the IL-17F standard curves and corrected for sample dilution. Undiluted samples are as follows: treated splenocyte supernatant 5%, and untreated splenocyte supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-17F concentration was determined to be 6,477 pg/mL in neat treated splenocyte supernatant, and 326.4 ng/mL in neat untreated splenocyte supernatant.



Recombinant IL-17F homodimer, recombinant IL-17A homodimer, and recombinant IL-17A/F heterodimer proteins were measured with this kit.

Background subtracted data values (mean +/- SD, n=2) are graphed. Note that the IL-17A protein is not detectable with this kit in the range assayed.

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-17F ELISA Kit (ab239423)

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

SimpleStep ELISA process steps:

- Add sample and antibody cocktail
- Wash + add TMB substrate
- Add stop solution + Read

90 minutes

Sandwich ELISA - Rat IL-17F ELISA Kit (ab239423)

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.

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-17F ELISA Kit (ab239423)

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

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

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