

Rat IL-17A ELISA Kit ab214028

リコンビナント SimpleStep ELISA

★★★★★ [1 Abreviews](#) [7 References](#) [画像数 13](#)

製品の概要

製品名 Rat IL-17A ELISA Kit

検出方法 Colorimetric

再現性 Intra-Assay (同時再現性)

サンプル	N	平均値	SD	CV%
Overall	3			3%

Inter-Assay (日差再現性)

サンプル	N	平均値	SD	CV%
Overall	5			7%

サンプルの種類 Cell culture supernatant, Serum, Cit plasma

アッセイタイプ Sandwich (quantitative)

検出感度 1.1 pg/ml

検出範囲 6.25 pg/ml - 400 pg/ml

添加回収試験 特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Serum	113	105% - 117%
Cell culture media	101	96% - 110%
Cit plasma	110	108% - 112%

全工程の試験時間 1h 30m

ステップ One step assay

種交差性 交差種: Rat

製品の概要 Rat IL-17A ELISA Kit (ab214028) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-17A protein in cell culture supernatant, cit plasma, and serum. It

uses our proprietary SimpleStep ELISA® technology. Quantitate Rat IL-17A with 1.1 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.

INTERFERENCE

Recombinant mouse IL-17F was prepared at 50 ng/mL and 1 ng/mL and tested for interference. No interference with was observed.

SPECIES REACTIVITY

This kit recognizes rat IL-17A protein. It also reacts with mouse IL-17A protein.

Mouse and human species reactivity was determined by measuring 2-fold dilutions of mouse and human recombinant IL-17A protein (see below). Other species reactivity was not determined.

特記事項

IL-17A is a pro-inflammatory cytokine that is secreted by a subset of activated T cells. It is a disulfide-linked homodimer with both glycosylated and non-glycosylated forms. IL-17A induces stromal cells to produce pro-inflammatory and hematopoietic cytokines, and also enhances the surface expression of ICAM1/intracellular adhesion molecule 1 in fibroblasts.

試験プラットフォーム

Pre-coated microplate (12 x 8 well strips)

製品の特性

保存方法

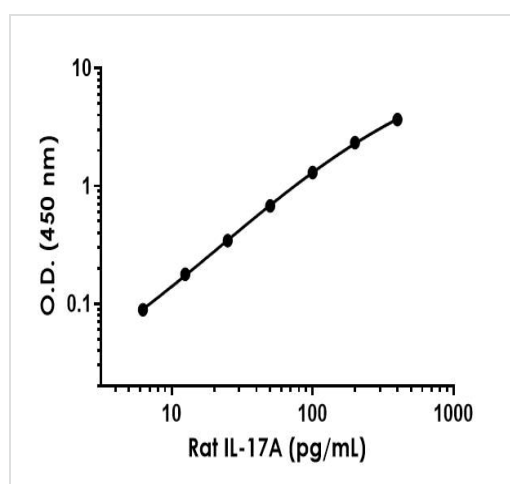
Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Rat IL-17a Capture Antibody	1 x 600µl
10X Rat IL-17a Detector Antibody	1 x 600µl

内容	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
Rat IL-17a Lyophilized Recombinant Protein (ab78597)	2 vials
Sample Diluent 75BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

機能	Induces stromal cells to produce proinflammatory and hematopoietic cytokines. Enhances the surface expression of the intracellular adhesion molecule-1 (ICAM-1) in fibroblasts.
組織特異性	Restricted to activated memory T-cells.
配列類似性	Belongs to the IL-17 family.
翻訳後修飾	Found both in glycosylated and nonglycosylated forms.
細胞内局在	Secreted.

画像



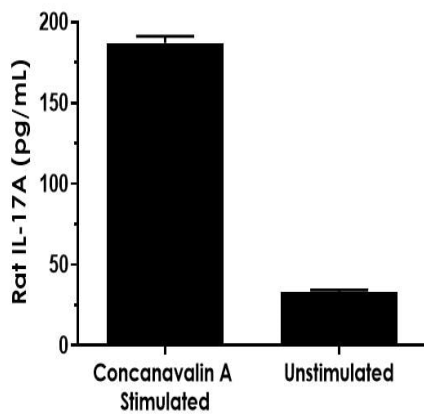
Background-subtracted data values (mean +/- SD) are graphed.

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

Standard Curve Measurements			
Concentration (pg/mL)	O.D 450 nm		Mean O.D
	1	2	
0	0.052	0.055	0.054
6.25	0.142	0.146	0.144
12.50	0.220	0.239	0.230
25	0.411	0.387	0.399
50	0.760	0.704	0.732
100	1.319	1.394	1.356
200	2.222	2.560	2.391
400	3.744	3.699	3.721

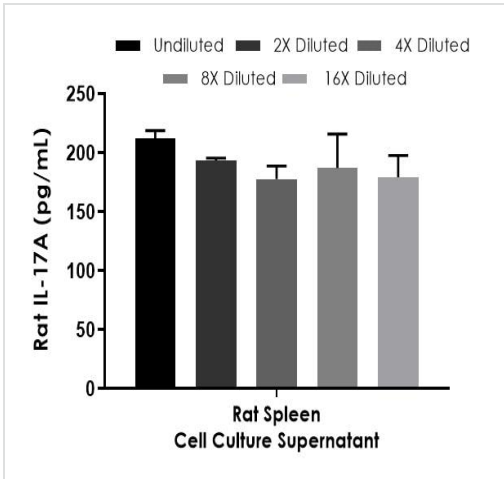
Example of rat IL-17A standard curve in Sample Diluent NS.

The IL-17A standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed



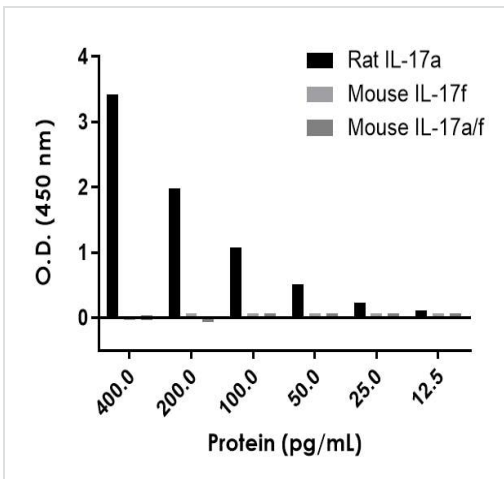
Comparison of IL-17a in unstimulated and Concanavalin A stimulated rat spleen cell supernatants.

Rat spleen cells were cultured in the absence or presence of 5 µg/mL Concanavalin A for 48 hours. The concentrations of IL-17a were measured in neat supernatant samples in duplicates and interpolated from the IL-17a standard curve. The interpolated values are plotted (mean +/- SD, n=2). The mean IL-17a concentration was determined to be 33.2 pg/mL in unstimulated, 187 pg/mL in Concanavalin A stimulated supernatants and undetectable in media (not shown).



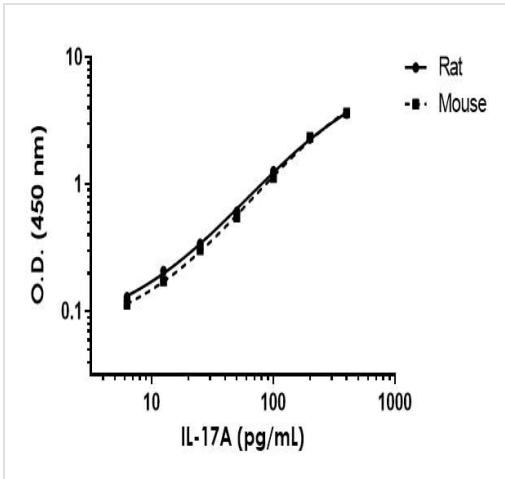
Interpolated concentrations of native IL-17a in 2 days 5 µg/mL Concanavalin A treated rat spleen cell culture supernatant samples.

The concentrations of IL-17a were measured in duplicates, interpolated from the IL-17a standard curves and corrected for sample dilution. Undiluted samples are as follows: rat spleen cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-17a concentration was determined to be 190 pg/mL in Concanavalin A treated rat spleen cell culture supernatant.



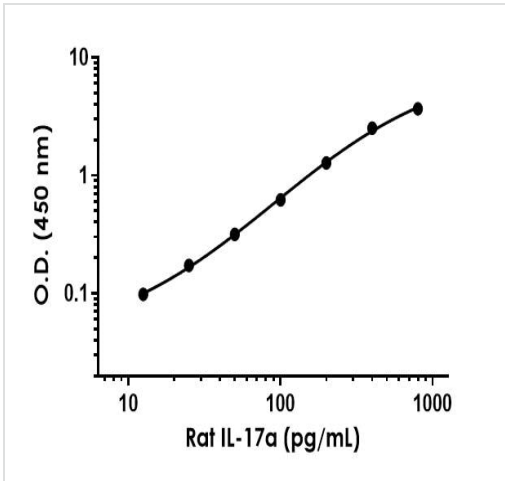
Serial dilutions of recombinant rat IL-17a homodimer, recombinant mouse IL-17f homodimer and recombinant mouse IL-17a/f heterodimer were measured with this kit.

Background-subtracted data values (n = 1) are graphed. Note that this kit is specific for IL-17a homodimer, it does not recognize IL-17f homodimer or IL-17a/f heterodimer.



Titration of mouse, rat and human recombinant IL-17a within the working range of the assay.

Two fold serial dilutions of rat, mouse and human recombinant IL-17a proteins were measured with this kit. Background-subtracted data values (mean +/- SD, n = 2) are graphed. O.D. values for human IL-17a protein were below background values. Note this kit reacts with mouse recombinant IL-17a protein. Note this kit does not react with human recombinant IL-17a protein.



Example of rat IL-17a standard curve in Sample Diluent 75BS.

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

Standard Curve Measurements			
Concentration (pg/ml)	O.D 450 nm		Mean O.D
	1	2	
0	0.067	0.071	0.069
12.50	0.167	0.167	0.167
25	0.243	0.240	0.242
50	0.387	0.385	0.386
100	0.689	0.690	0.690
200	1.357	1.335	1.346
400	2.510	2.656	2.583
800	3.754	3.719	3.737

Example of rat IL-17A standard curve in Sample Diluent 75BS.

The IL-17A standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Dilution Factor	Interpolated value	100% Rat Serum	100% Rat Plasma (Citrate)
Undiluted	pg/mL	759	761
	% Expected value	100	100
2	pg/mL	355	353
	% Expected value	94	93
4	pg/mL	158	156
	% Expected value	83	82
8	pg/mL	80	77
	% Expected value	84	81
16	pg/mL	40	42
	% Expected value	84	87

Linearity of dilution.

Linearity of dilution is determined based on interpolated values from the standard curve. Linearity of dilution defines a sample concentration interval in which interpolated target concentrations are directly proportional to sample dilution.

Recombinant IL-17A was spiked into the following biological samples and diluted in a 2-fold dilution series in Sample Diluent 75BS.

100% pooled serum and plasma (citrate) samples from healthy donors was measured in duplicate. All values were below the detectable range of the assay.

Dilution Factor	Interpolated value	100% ConA Treated Rat Spleen Supernatant
Undiluted	pg/mL	213
	% Expected value	100
2	pg/mL	97
	% Expected value	91
4	pg/mL	45
	% Expected value	84
8	pg/mL	23
	% Expected value	88
16	pg/mL	11
	% Expected value	84

Linearity of dilution.

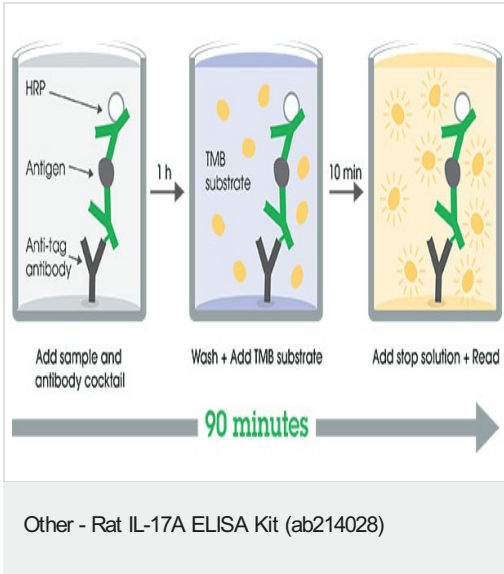
Linearity of dilution is determined based on interpolated values from the standard curve. Linearity of dilution defines a sample concentration interval in which interpolated target concentrations are directly proportional to sample dilution.

Native IL-17A was measured in the following biological samples in a 2-fold dilution series. Sample dilutions are made in Sample Diluent NS.

Sample Diluent Buffer	n=	Minimal Detectable Dose
Sample Diluent 75BS	8	3.2 pg/mL
Sample Diluent NS	8	1.1 pg/mL

Assay sensitivity.

The MDD was determined by calculating the mean of zero standard replicates and adding 2 standard deviations then extrapolating the corresponding concentration.



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-17A ELISA Kit (ab214028)

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

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