# abcam

### Product datasheet

## Mouse IL-7 ELISA Kit ab227902

Recombinant SimpleStep ELISA

6 Images

Overview

Recovery

**Product name** Mouse IL-7 ELISA Kit

**Detection method** Colorimetric

**Precision** 

Sample	n	Mean	SD	CV%
Spiked media	8			2.9%

Inter-assay

Sample specific recovery

Intra-assay

Sample	n	Mean	SD	CV%
Spiked media	3			5%

Sample type Cell culture supernatant, Serum, Hep Plasma

Assay type Sandwich (quantitative)

Sensitivity 12.046 pg/ml

39.06 pg/ml - 2500 pg/ml Range

Sample type	Average %	Range
Cell culture supernatant	107	103% - 105%
Serum	85	83% - 88%
Hep Plasma	83	81% - 83%

Assay time 1h 30m

**Assay duration** One step assay

**Species reactivity** Reacts with: Mouse

**Product overview** Mouse IL-7 ELISA Kit (ab227902) is a single-wash 90 min sandwich ELISA designed for the

quantitative measurement of IL-7 protein in cell culture supernatant, hep plasma, and serum. It

uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse IL-7 with 12.046 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Unsuitable for EDTA plasma.

**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 CPI - HAMA Blocker (ab193969)	1 x 6ml
10X Mouse IL-7 Capture Antibody	1 x 600µl
10X Mouse IL-7 Detector Antibody	1 x 600µl
Mouse IL-7 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
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

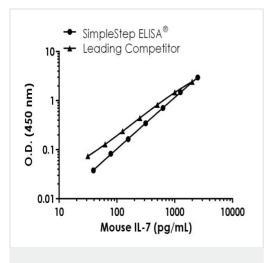
#### **Function**

Hematopoietic growth factor capable of stimulating the proliferation of lymphoid progenitors. It is important for proliferation during certain stages of B-cell maturation.

Sequence similarities

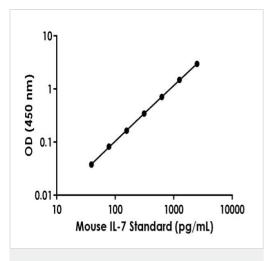
Belongs to the IL-7/IL-9 family.

#### **Images**



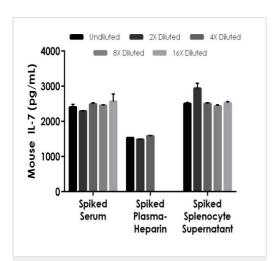
Mouse IL-7 Standard Curve Comparison Data

Standard curve comparison between mouse IL-7 SimpleStep  ${\sf ELISA}^{\circledR} \ {\sf kit} \ {\sf and} \ {\sf traditional} \ {\sf ELISA} \ {\sf kit} \ {\sf from} \ {\sf leading} \ {\sf competitor}.$  SimpleStep ELISA kit shows comparable sensitivity.



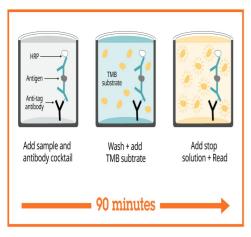
Example of Mouse IL-7 standard curve in Sample Diluent NS

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



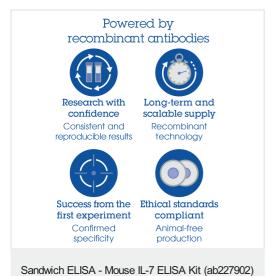
Interpolated concentrations of spiked IL-7 in Mouse serum, plasma and cell culture supernatant samples

The concentrations of IL-7 were measured in duplicates, interpolated from the IL-7 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (heparin) 50% and splenocyte supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-7 concentration was determined to be 2441.13 pg/mL in serum, 1535.45 pg/mL in plasma (heparin), and 2581.66g/mL in and splenocyte supernatant.

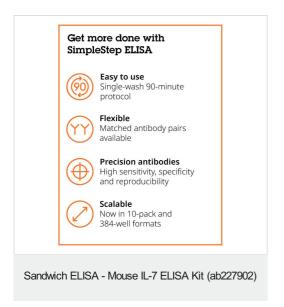


Sandwich ELISA - Mouse IL-7 ELISA Kit (ab227902)

SimpleStep ELISA technology allows the formation of the antibodyantigen 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.



To learn more about the advantages of recombinant antibodies see **here**.



To learn more about the advantages of SimpleStep ELISA<sup>®</sup> kits see <u>here</u>.

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