

## Product datasheet

### Canine CKM ELISA Kit ab197749

SimpleStep ELISA

[1 References](#) [4 Images](#)

#### Overview

**Product name** Canine CKM ELISA Kit

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			7.88%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			7.18%

**Sample type** Serum, Tissue Extracts

**Assay type** Sandwich (quantitative)

**Sensitivity** 20 pg/ml

**Range** 0.08 ng/ml - 5 ng/ml

#### Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	102.61	102.54% - 102.67%
1X Cell Extraction Buffer PTR	101.35	96.12% - 111.33%

**Assay time** 1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Dog

**Does not react with:** Mouse, Hamster

#### Product overview

Canine CKM ELISA Kit (ab197749) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CKM protein in serum and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Canine CKM with 20 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

Creatine kinase (CK) catalyzes creatine to phosphocreatine (PCr) by consuming adenosine triphosphate (ATP) and producing adenosine diphosphate (ADP). This process is reversible, thus PCr and ADP can be used to generate ATP and creatine. There are three known cytoplasmic isoenzymes (CKMM- skeletal muscle, CKMB-myocardium, and CKBB- nervous tissue). Phosphocreatine serves as an energy storage for rapid regeneration of ATP. Creatine is used in tissues with high energy demands, such as skeletal muscle, heart, and brain.

Expression of CKM in serum are based on muscle mass, age, gender, race, and physical activity. Skeletal muscle expresses approximately 98% CKMM and 1% CKMB, myocardium expresses 70% CKMM and 25-30% CKMB, and neural tissue expresses a majority of CKBB.

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## Platform

Microplate (12 x 8 well strips)

## Properties

### Storage instructions

Please refer to protocols.

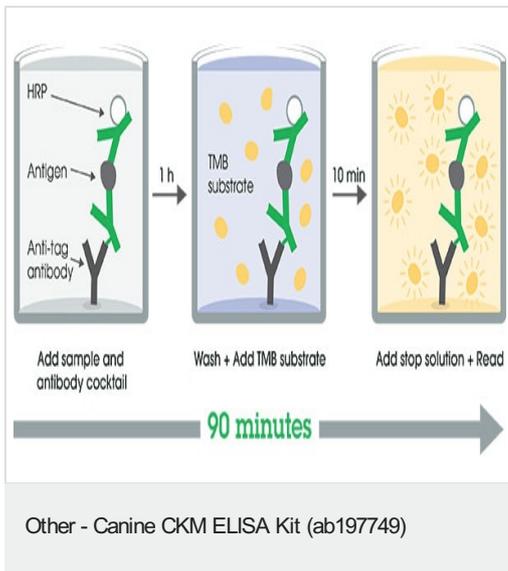
Components	1 x 96 tests
10X CKM Capture Antibody	1 x 600µl
10X CKM Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI2	1 x 6ml

Components	1 x 96 tests
Canine CKM Lyophilized Purified 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

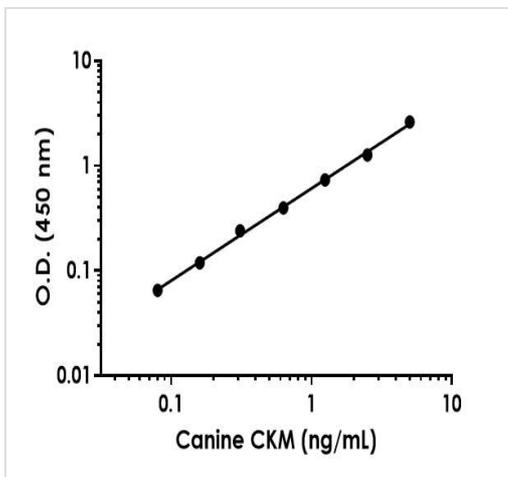
**Cellular localization**

Cytoplasmic

**Images**

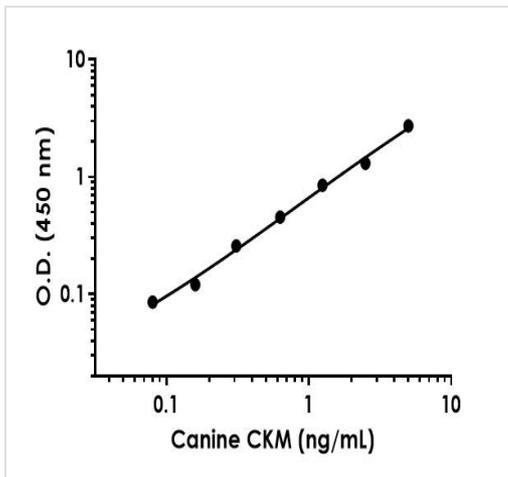


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



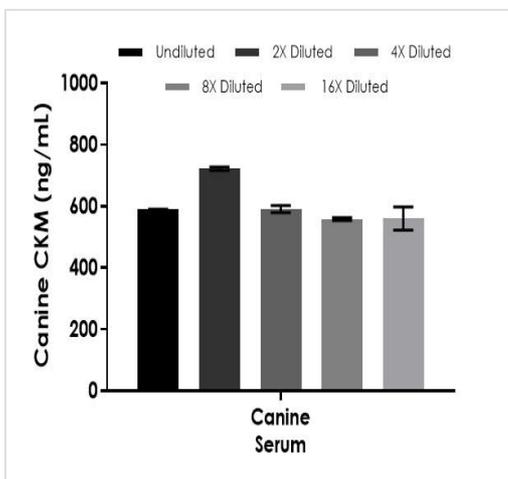
Background-subtracted data values (mean +/- SD) are graphed.

Example of CKM standard curve in Sample Diluent NS.



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

Example of CKM standard curve in 1X Cell Extraction Buffer PTR.



The concentrations of CKM were measured in duplicates, interpolated from the CKM standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CKM concentration was determined to be 603.95 ng/mL in serum.

Interpolated concentrations of native CKM in canine serum samples.

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