

## Product datasheet

### Mouse RGMA ELISA Kit ab243687

Recombinant SimpleStep ELISA<sup>®</sup>

[7 Images](#)

#### Overview

**Product name** Mouse RGMA ELISA Kit

**Detection method** Colorimetric

#### Precision

Intra-assay

Sample	n	Mean	SD	CV%
serum	8			7%

Inter-assay

Sample	n	Mean	SD	CV%
serum	3			8.1%

**Sample type** Serum, Hep Plasma, EDTA Plasma, Cit plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 90 pg/ml

**Range** 0.31 ng/ml - 20 ng/ml

#### Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	110	105% - 115%
Hep Plasma	108	105% - 114%
EDTA Plasma	112	105% - 121%
Cit plasma	115	113% - 120%

**Assay time** 1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Mouse

## Product overview

Mouse RGMA ELISA Kit (ab243687) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of RGMA protein in cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse RGMA with 90 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.

## Tested applications

**Suitable for:** Sandwich ELISA

## 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 Mouse RGMA Capture Antibody	1 x 600µl
10X Mouse RGMA Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPR2	1 x 6ml
Mouse RGMA Lyophilized Recombinant Protein	2 vials
Plate Seal	1 unit
Sample Diluent 50BP	1 x 20ml
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

## Function

Member of the repulsive guidance molecule (RGM) family that performs several functions in the developing and adult nervous system. Regulates cephalic neural tube closure, inhibits neurite outgrowth and cortical neuron branching, and the formation of mature synapses. Binding to its receptor NEO1/neogenin induces activation of RHOA-ROCK1/Rho-kinase signaling pathway through UNC5B-ARHGEF12/LARG-PTK2/FAK1 cascade, leading to collapse of the neuronal growth cone and neurite outgrowth inhibition. Furthermore, RGMA binding to NEO1/neogenin leads to HRAS inactivation by influencing HRAS1-PTK2/FAK1-AKT1 pathway. It also functions as a bone morphogenetic protein (BMP) coreceptor that may signal through SMAD1, SMAD5, and SMAD8.

## Sequence similarities

Belongs to the repulsive guidance molecule (RGM) family.

## Cellular localization

Cell membrane.

## Applications

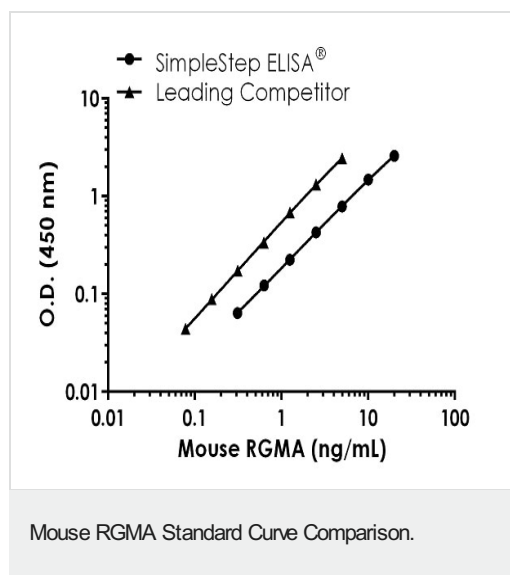
### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab243687 in the following tested applications.

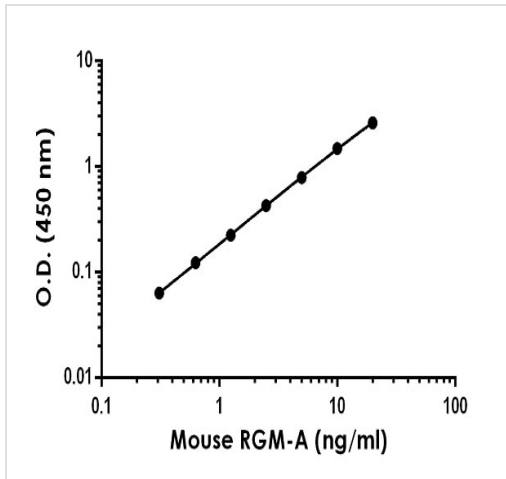
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent concentration.

## Images

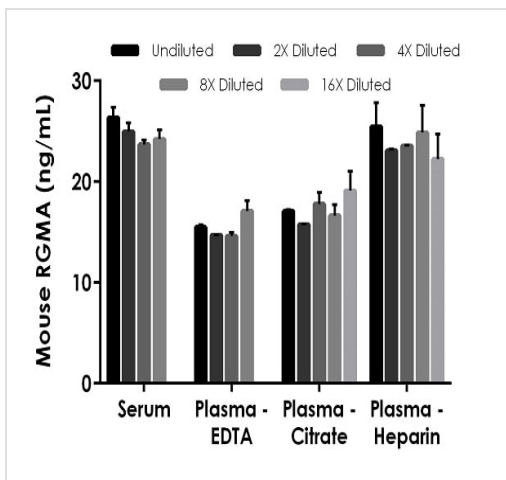


Standard Curve comparison between mouse RGMA SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



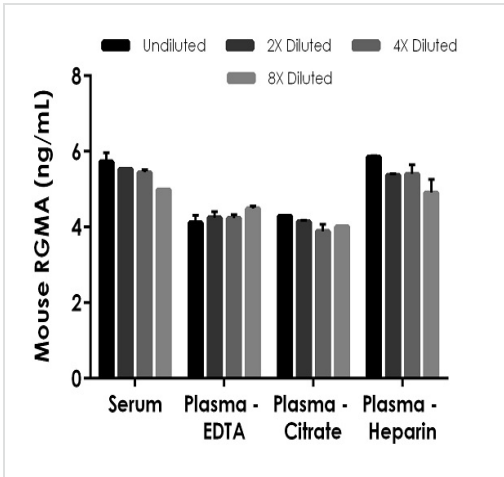
Example of mouse RGMA standard curve in Sample Diluent 50BP.

The RGMA 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 RGMA in mouse serum and plasmas.

The concentrations of RGMA were measured in duplicates, interpolated from the RGMA standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (EDTA) 25%, plasma (citrate) 25% and plasma (heparin) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean RGMA concentration was determined to be 24.1 ng/mL in serum, 15.5 ng/mL in plasma (EDTA), 17.3 ng/mL in plasma (citrate) and 23.8 ng/mL plasma (heparin).



Interpolated concentrations of native RGMA in rat serum and plasmas.

The concentrations of RGMA were measured in duplicates, interpolated from the RGMA standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (EDTA) 50%, plasma (citrate) 25% and plasma (heparin) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean RGMA concentration was determined to be 5.3 ng/mL in serum, 4.2 ng/mL in plasma (EDTA), 4.1 ng/mL in plasma (citrate) and 5.3 ng/mL plasma (heparin).

Powered by recombinant antibodies

**Research with confidence**  
Consistent and reproducible results

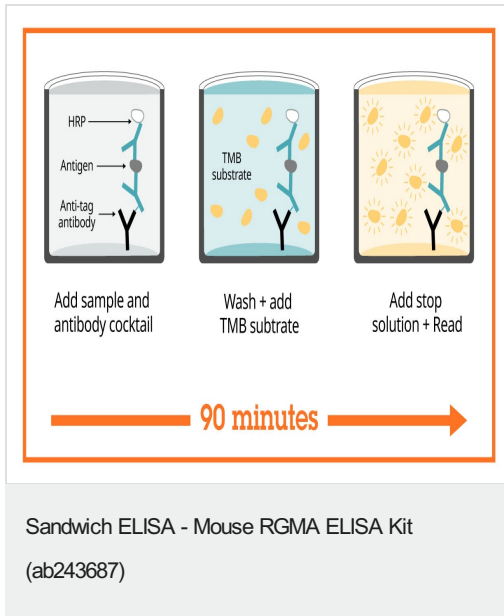
**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Mouse RGMA ELISA Kit (ab243687)

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



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 - Mouse RGMA ELISA Kit  
(ab243687)

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

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

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