

Mouse IgG2 α ELISA Kit ab133046

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Overview

Product name Mouse IgG2a ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Low IgG2a	16	37.3ng/ml		1%
Medium IgG2a	16	72ng/ml		2.8%
High IgG2a	16	148ng/ml		5.7%

Inter-assay

Sample	n	Mean	SD	CV%
Low IgG2a	8	36.7ng/ml		4.2%
Medium IgG2a	8	70.3ng/ml		3.6%
High IgG2a	8	143ng/ml		7.5%

Sample type Serum, Tissue Culture Media

Assay type Sandwich (quantitative)

Sensitivity 47.3 pg/ml

Range 7.81 ng/ml - 250 ng/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	= 98.4	% - %
Tissue Culture Media	= 98.2	% - %

Assay duration Multiple steps standard assay

Species reactivity**Reacts with:** Mouse**Product overview**

Abcam's Mouse IgG_{2a} *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of Mouse IgG_{2a} in Tissue Culture Media and Serum.

IgG_{2a} specific antibody has been precoated onto 96-well plates. Standards and test samples are added to the wells and along with an HRP-conjugated IgG_{2a} detection antibody and the microplate is then incubated at room temperature. After the removal of unbound proteins by washing, TMB is used to visualize the HRP enzymatic reaction. TMB is catalyzed by HRP to produce a colored product that changes after adding acidic stop solution. The density of coloration is directly proportional to the IgG_{2a} amount of sample captured in plate.

Note: ab133046 has been redeveloped to offer a better sensitivity in the detection of Mouse IgG2a antibodies. The detection range remains the same.

Notes

IgG2 is divided into two subclasses; IgG2a and IgG2b. It is a glycoprotein which consists of two identical heavy chains (50 kDa each) and two identical light chains (25 kDa each), to give a combined mass of approximately 150 kDa. The chains are held in place by covalent disulfide bonds. Each light chain contains two immunoglobulin (Ig) domains, while the heavy chains contain four Ig domains each. In the middle of each heavy chain is a relative varying portion called the "hinge region" which is unique to each IgG. This region allows for molecular flexibility and sets IgG2a apart from its IgG counterparts. Properties of IgG2a include neutralization of toxins and diffusion in the extracellular space.

Cross Reactivity

IgG	% Cross Reactivity
mouse IgG2a	100
mouse IgG3	0.49
mouse IgM	0.12
mouse IgG1	<0.01
mouse IgG2b	<0.01
rat IgG2a	<0.01

Platform

Microplate

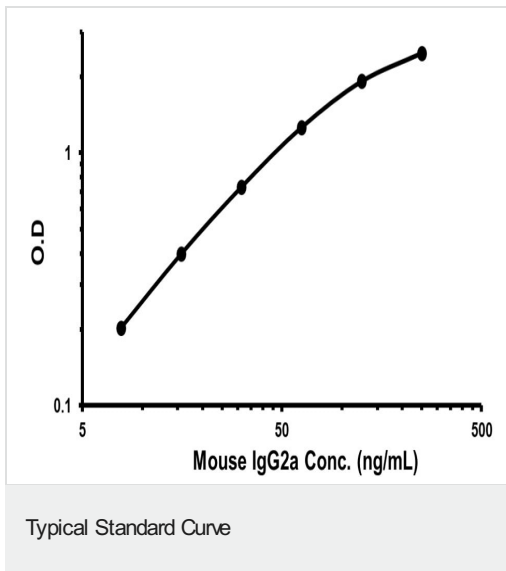
Properties**Storage instructions**

Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer Concentrate	1 x 100ml
Assay Buffer 13 Concentrate	1 x 50ml

Components	1 x 96 tests
Goat anti-mouse IgG Microplate (12 x 8 wells)	1 unit
Mouse IgG _{2a} HRP Conjugate	1 x 5ml
Mouse IgG _{2a} Standard	2 vials
Plate Sealer	2 units
Stop Solution 2	1 x 10ml
TMB Substrate	1 x 10ml

Images



Representative Standard Curve using ab133046.

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