

PRODUCT INFORMATION

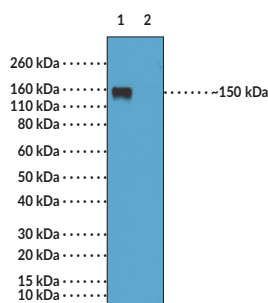


IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219) Item No. 32352

Overview and Properties

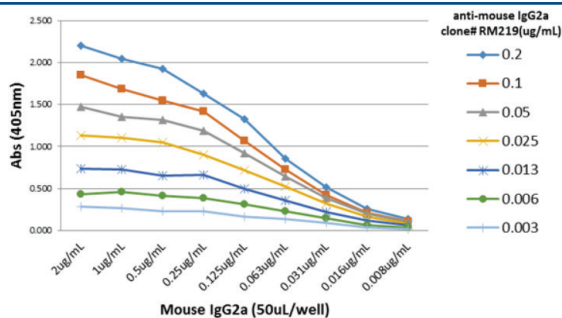
Contents:	This vial contains 50 µg of protein A-affinity purified monoclonal antibody.
Synonym:	Immunoglobulin 2a
Immunogen:	Mouse IgG2a
Cross Reactivity:	(+) IgG2a; (-) Mouse IgG1, IgG2b, IgG2c, IgG3, IgM, IgA, IgE; (-) Human, rat IgG
Species Reactivity:	(+) Mouse
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1 mg/ml
Clone:	RM219
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA and Western blot (WB; non-reduced); the recommended starting concentration is 0.005-0.2 µg/ml for ELISA and 0.5-2 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

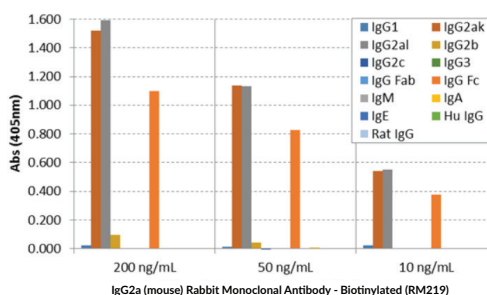


Lane 1: Non-reduced mouse IgG2a
Lane 2: Reduced mouse IgG2a

WB of non-reduced or reduced mouse IgG2a using IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219) at a concentration of 0.5 µg/ml.



A Titer ELISA using IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219). The plate was coated with different amounts of mouse IgG2a. A serial dilution of IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219) was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.



ELISA of mouse immunoglobulins (Igs). IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219) reacts only to the Fc region of mouse IgG2a and not to mouse IgG1, IgG2b, IgG2c, IgG3, IgM, IgA, IgE, human IgG, or rat IgG. The plate was coated with 50 ng/well of different Igs. 200, 50, or 10 ng/well of IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219) was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Immunoglobulin G (IgG) is a member of the immunoglobulin superfamily of glycoproteins that plays a central role in the adaptive immune response.¹ It is produced by B cells and later secreted by plasma cells and is the most abundant circulating antibody in human and mouse serum.¹⁻³ IgG consists of two heavy chains of approximately 50 kDa each and two light chains of approximately 25 kDa each.¹ The heavy chains are linked together by disulfide bonds to form an Fc region and also combine with the light chains to form the Fab region, which mediate receptor and antigen binding, respectively.⁴ IgG is produced following IgM class-switching in response to infection and is involved in numerous humoral host defense responses, including antibody-dependent cell-mediated cytotoxicity (ADCC), toxin neutralization, and pathogen opsonization.² IgG exists as four isotypes in mice: IgG1, IgG2b, IgG3, and, in a strain-specific manner, IgG2a or IgG2c.^{5,6} *In vivo*, class switching to the IgG2a isotype can happen *via* IFN- γ -dependent and -independent mechanisms, with the former resulting from the cognate interaction of B cells with T helper 1 (Th1) cells.⁷ IgG2a is the predominant isotype produced in response to infection with DNA or RNA viruses in mice.⁸ Cayman's IgG2a (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM219) can be used for ELISA and Western blot (WB; non-reducing conditions) applications. The antibody recognizes the Fc region of IgG2a at approximately 150 kDa from mouse samples.

References

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