

PRODUCT INFORMATION

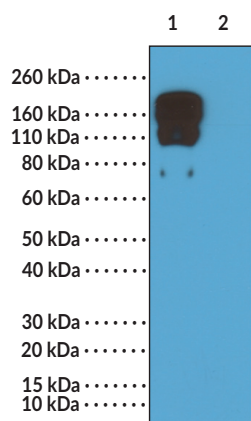


IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223) Item No. 32357

Overview and Properties

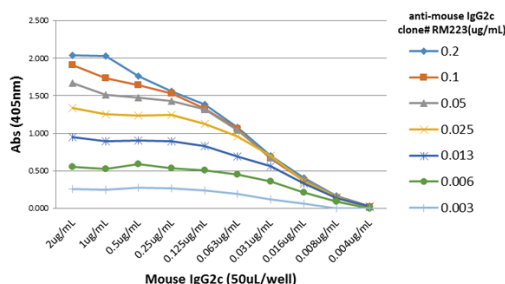
Contents:	This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonym:	Immunoglobulin G2c
Immunogen:	Mouse IgG2c
Cross Reactivity:	(+) IgG2c; (-) Mouse IgG1, IgG2a, IgG2b, IgG3, IgM, IgA, IgE; (-) Human, rat IgG
Species Reactivity:	(+) Mouse
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1 mg/ml
Clone:	RM223
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA and Western blot (WB); the recommended starting concentration is 0.01-0.2 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

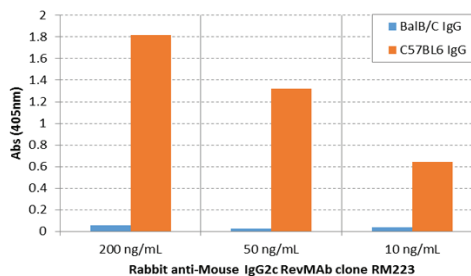


Lane 1: Non-reduced mouse IgG2c (0.5 µg/ml)
Lane 2: Reduced mouse IgG2c (0.5 µg/ml)

WB of non-reduced (1) and reduced (2) mouse IgG2c using IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223) at a concentration of 0.5 µg/ml.



A Titer ELISA using IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223). The plate was coated with different amounts of mouse IgG2c. A serial dilution of IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223) 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). IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223) reacts only to C57Bl6 IgG containing IgG2c and not to BalB/c IgG containing IgG2a. The plate was coated with different Igs. IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223) was used as the primary antibody and an alkaline phosphatase conjugated anti-rabbit IgG 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
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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



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} IgG2c is encoded by *Ighg2c* and is expressed in certain inbred mouse strains, such as C57BL/6, C57BL/10, SJL, and NOD mice.⁶ Class switching to the IgG2c isotype occurs via IFN- γ stimulation during the early immune response.⁷ IgG2c binds to the high-affinity Ig γ Fc receptor I (Fc γ RI) on dendritic cells and the low-affinity Fc γ RIII and Fc γ RIV, which are expressed on a variety of immune cells, and is involved in complement activation.^{8,9} Cayman's IgG2c (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM223) can be used for ELISA and Western blot (WB; non-reducing conditions) applications. The antibody recognizes the Fc region of IgG2c from mouse samples.

References

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM