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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION

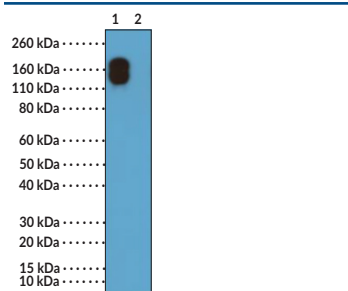


IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated Item No. 32351

Overview and Properties

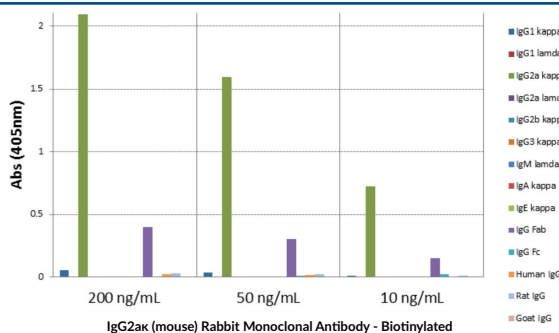
Contents:	This vial contains 50 µg of protein A-affinity purified monoclonal antibody.
Synonyms:	Immunoglobulin G2ak
Immunogen:	Mouse IgG
Cross Reactivity:	(+) IgG2ak; (-) Mouse IgG2aλ, IgG1, IgG3, IgM, IgA, IgE; (-) Human, goat, rat IgG
Species Reactivity:	(+) Mouse
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1 mg/ml
Clone:	RM107
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 0.1-0.5 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

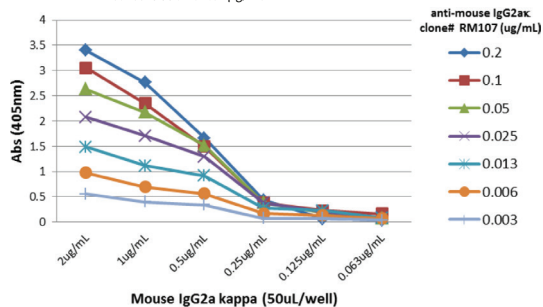


Lane 1: Non-reduced mouse IgG2ak (20 ng)
Lane 2: Reduced mouse IgG2ak (20 ng)

WB of non-reduced or reduced mouse IgG2ak (20 ng/lane) using IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated at a concentration of 0.2 µg/ml.



ELISA of mouse immunoglobulins (Igs). IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated reacts to the Fab region of mouse IgG2ak and not to IgG2aλ, IgG1, IgG3, IgM, IgA, IgE, human IgG, rat IgG or goat IgG. The plate was coated with 50 ng/well of different Igs. 200, 50, or 10 ng/ml of IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.



A Titer ELISA using IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated. The plate was coated with different amounts of mouse IgG2ak. A serial dilution of IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated 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
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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} *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 Mammalian immunoglobulins contain either Ig κ or Ig λ light chains, each of which are composed of a constant and variable domain.⁹ Cayman's IgG2ak (mouse) Rabbit Monoclonal Antibody - Biotinylated can be used for ELISA and Western blot (WB; non-reducing conditions). The antibody recognizes the Fab region of IgG2ak from mouse samples.

References

1. Schroeder, H.W., Jr., and Cavicini, L. Structure and function of immunoglobulins. *J. Allergy Clin. Immunol.* **125(2 Suppl. 2)**, S41-S52 (2010).
2. Vidarsson, G., Dekkers, G., and Rispens, T. IgG subclasses and allotypes: From structure to effector functions. *Front. Immunol.* **5**, 520 (2014).
3. Mayumi, M., Kuritani, T., Kubagawa, H.M., *et al.* IgG subclass expression by human B lymphocytes and plasma cells: B lymphocytes precommitted to IgG subclass can be preferentially induced by polyclonal mitogens with T cell help. *J. Immunol.* **130(2)**, 671-677 (1983).
4. Vaillant, A.A.J. and Ramphul, K. Immunoglobulin. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing (2020). Available from: <https://www.ncbi.nlm.nih.gov/books/NBK513460/>
5. Collins, A.M. IgG subclass co-expression brings harmony to the quartet model of murine IgG function. *Immunol. Cell Biol.* **94(10)**, 949-954 (2016).
6. Martin, R.M., Brady, J.L., and Lew, A.M. The need for IgG2c specific antiserum when isotyping antibodies from C57BL/6 and NOD mice. *J. Immunol. Methods* **212(2)**, 187-192 (1998).
7. Jegerlehner, A., Maurer, P., Bessa, J.M., *et al.* TLR9 signaling in B cells determines class switch recombination to IgG2a. *J. Immunol.* **178(4)**, 2415-2420 (2007).
8. Coutlelier, J.P., Van Der Logt, J.T.M., Heessen, F.W.A., *et al.* IgG2a restriction of murine antibodies elicited by viral infections. *J. Exp. Med.* **165(1)**, 64-69 (1987).
9. Janeway, C.A., Jr., Travers, P., Walport, M., *et al.* Antigen recognition by B-cell and T-cell receptors. *Immunobiology: The immune system in health and disease*. Lawrence, E., editor, 6th edition, *Garland Science* (2005).

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