PRODUCT INFORMATION

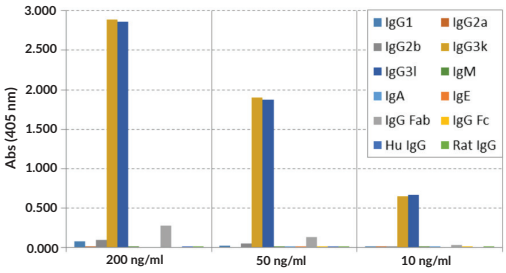
IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218)

Item No. 32354

Overview and Properties

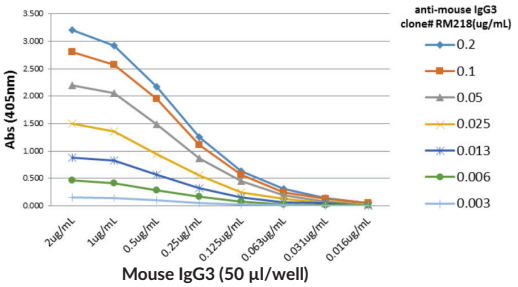
Contents:	This vial contains 50 µg of protein A-affinity purified monoclonal antibody.
Synonym:	Immunoglobulin G3
Immunogen:	Mouse IgG3
Cross Reactivity:	(+) IgG3; (-) Mouse IgG1, IgG2a, IgG2b, IgM, IgA, IgE; (-) Human, rat IgG
Species Reactivity:	(+) Mouse
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1 mg/ml
Clone:	RM218
Host:	Rabbit
Isotype:	IgG
Application:	ELISA; the recommended starting concentration is 0.005-0.2 µg/ml. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218)

ELISA of mouse immunoglobulins. IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218) reacts to mouse IgG3κ and IgG3λ and not to mouse IgG1, IgG2a, IgG2b, IgM, IgA, IgE, human IgG, or rat IgG. The plate was coated with 50 ng/well of different immunoglobulins. IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218) was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.



Mouse IgG3 (50 µl/well)

A Titer ELISA using IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218). The plate was coated with different amounts of mouse IgG3. A serial dilution of IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218) was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.

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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 exists as four isotypes in mice: IgG1, IgG2b, IgG3, and, in a strain-specific manner, IgG2a or IgG2c.[5,6] IgG3 production is driven by bacterial- or viral-associated antigens, including HIV-1 and *Staphylococcus* antigens, and occurs early in the immune response following IgM class-switching.[2,7] IgG3 binds to and neutralizes pathogens, as well as activates complement and opsonizes bacteria, leading to complement-dependent cytotoxicity (CDC) and antibody-dependent cell cytotoxicity (ADCC), respectively. Serum IgG3 levels are increased in patients with primary biliary cirrhosis, Sjögren's syndrome, systemic sclerosis, or systemic lupus erythematosus (SLE).[8] Cayman's IgG3 (mouse) Rabbit Monoclonal Antibody - Biotinylated (RM218) can be used for ELISA. This antibody recognizes the Fab region of IgG3 from mouse samples.

References

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