

# PRODUCT INFORMATION

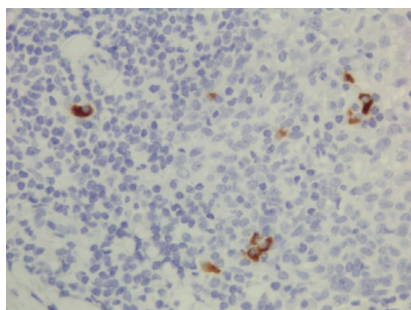


## IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119) Item No. 32375

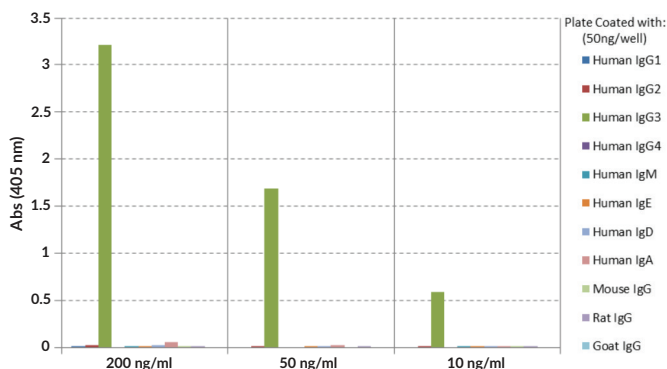
### Overview and Properties

<b>Contents:</b>	This vial contains 50 µg of protein A-affinity purified monoclonal antibody.
<b>Synonym:</b>	Immunoglobulin G3
<b>Immunogen:</b>	Human IgG3
<b>Cross Reactivity:</b>	(+) IgG3; (-) Human IgG1, IgG2, IgG4, IgM, IgA, IgD, IgE; (-) Goat, mouse, rat IgG
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Concentration:</b>	1 mg/ml
<b>Clone:</b>	RM119
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	ELISA, Immunocytochemistry (ICC), and Immunohistochemistry (IHC); the recommended starting concentration is 200 ng/well for ELISA (for capture) and 0.05-0.2 µg/ml for detection) and 0.5-2 µg/ml for ICC and IHC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



Immunohistochemical staining of human lymphoid tissue using IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119).



IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119)

ELISA of human immunoglobulins. IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119) only reacts to human IgG3 and not to human IgG1, IgG2, IgG4, IgM, IgA, IgD, IgE, goat IgG, mouse IgG, or rat IgG. The plate was coated with 50 ng/well of different immunoglobulins. IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119) 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.

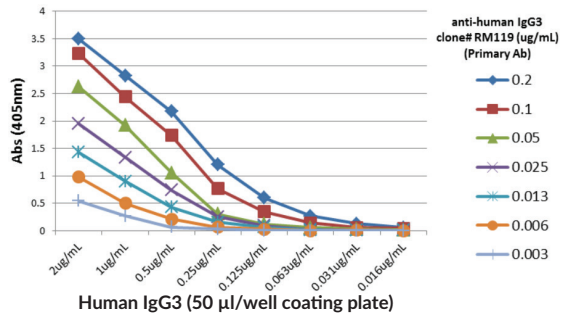
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This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet,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

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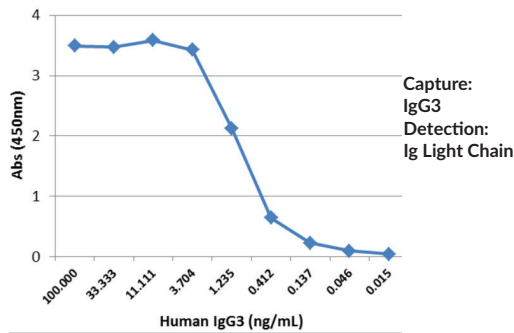
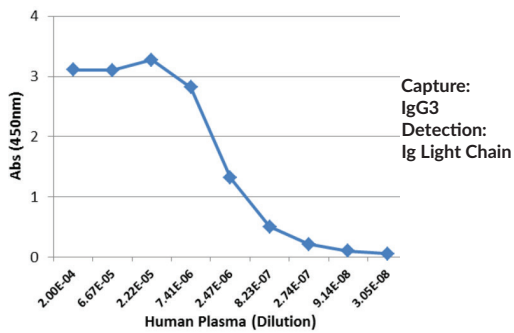
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A Titer ELISA using IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119). The plate was coated with different amounts of human IgG3. A serial dilution of IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119) was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.



Sandwich ELISA using IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119) as the capture antibody (100 ng/well) and Ig Light Chain (human) Rabbit Monoclonal Antibody - Biotinylated (Item No. 32112) as the detection antibody, followed by an HRP-conjugated streptavidin.

# 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.<sup>1</sup> It is produced by B cells and later secreted by plasma cells and is the most abundant circulating antibody in human and mouse serum.<sup>1-3</sup> IgG consists of two heavy chains of approximately 50 kDa each and two light chains of approximately 25 kDa each.<sup>1</sup> 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.<sup>4</sup> IgG exists as four isotypes in mice: IgG1, IgG2b, IgG3, and, in a strain-specific manner, IgG2a or IgG2c.<sup>5,6</sup> 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.<sup>2,7</sup> 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).<sup>8</sup> Cayman's IgG3 (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM119) can be used for ELISA, immunocytochemistry (ICC), and immunohistochemistry (IHC) applications. The antibody recognizes the heavy chain of IgG3 from human samples.

## References

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