

# PRODUCT INFORMATION

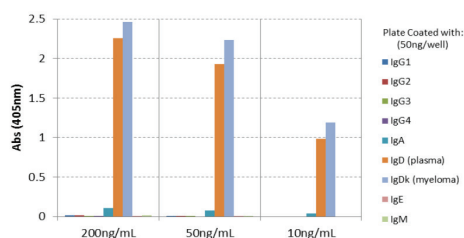


## IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123) Item No. 32371

### Overview and Properties

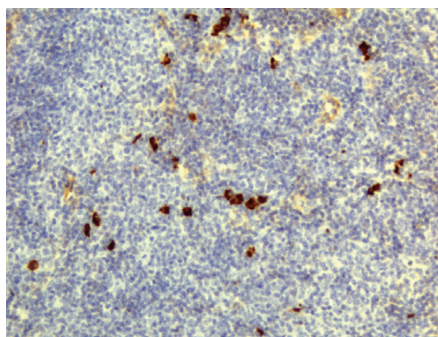
<b>Contents:</b>	This vial contains 50 µg of protein A-affinity purified monoclonal antibody.
<b>Synonym:</b>	Immunoglobulin D
<b>Immunogen:</b>	Human IgD
<b>Cross Reactivity:</b>	(+) IgD; (-) Human IgG, IgM, IgE, IgA
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM123
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	ELISA; the recommended starting concentration is 25-200 ng/well for ELISA (capture) and 0.01-0.1 µg/ml ELISA (detection). Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images

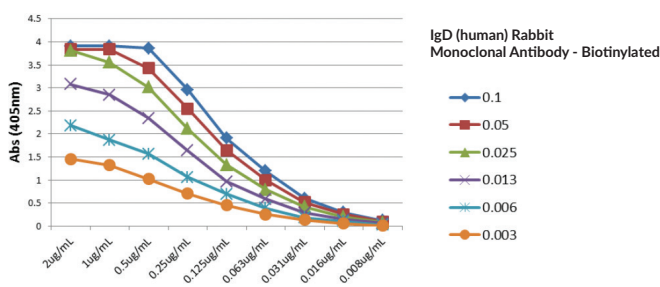


IgD (human) Rabbit Monoclonal Antibody - Biotinylated - (Clone RM123) (Primary Antibody)

ELISA of human immunoglobulins (Igs). IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123) reacts to IgD from human plasma and IgD from human myeloma. No cross reactivity with human IgG, IgM, IgA, or IgE. The plate was coated with 50 ng/well of different immunoglobulins. 200 ng/ml, 50 ng/ml, or 10 ng/ml of IgG Fc (mouse) Monoclonal Antibody - Biotinylated was used as the primary antibody. An alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.



Immunohistochemical staining of human lymphoid tissue using IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123).



IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123)

A titer ELISA using IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123). The plate was coated with different amounts of human IgD (from plasma). A serial dilution of IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123) was used as the primary antibody. 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

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## Description

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Immunoglobulin D (IgD) is a member of the immunoglobulin superfamily of glycoproteins that functions as a B cell antigen receptor (BCR) and has roles in adaptive immunity.<sup>2</sup> Human IgD is composed of two Ig $\delta$  heavy chains of approximately 50 kDa each and two Ig $\kappa$  or Ig $\lambda$  light chains of approximately 25 kDa each.<sup>1,3</sup> It is expressed on the surface of antigen-naïve mature B cells, which are found in germinal centers and peripheral blood, as well as certain subsets of circulating memory B cells.<sup>2,4</sup> IgD levels increase during B cell maturation and are regulated by alternative splicing of an mRNA transcript that is common to the  $\mu$  and  $\delta$  heavy chains of IgM and IgD, respectively.<sup>2,5</sup> Upon antigen activation, IgD can undergo class switch recombination to the immunoglobulin isotypes IgA, IgE, or IgG, each of which has a distinct effector function.<sup>6</sup> IgD can also be produced from IgM by class switch recombination, leading to the generation of IgD-secreting plasma cells that have roles in mucosal immunity.<sup>7</sup> IgD binds to basophil and mast cell lines, as well as the respiratory pathogens *M. catarrhalis* and *H. influenzae*, *in vitro*.<sup>8</sup> Serum IgD levels are increased in patients with a variety of conditions, including leprosy, tuberculosis, malaria, or Hodgkin's lymphoma and is a hallmark of hyperimmunoglobulinemia D syndrome (HIDS), an autoinflammatory condition characterized by febrile episodes.<sup>9</sup> Cayman's IgD (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM123) can be used for ELISA.

## 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