

PRODUCT INFORMATION



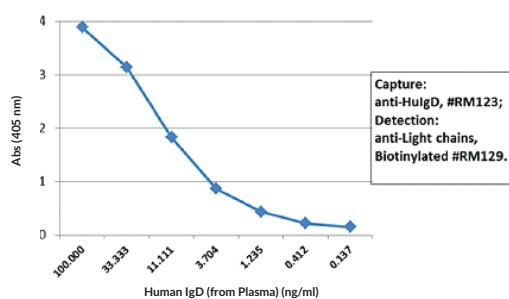
IgD (human) Rabbit Monoclonal Antibody (Clone RM123)

Item No. 32117

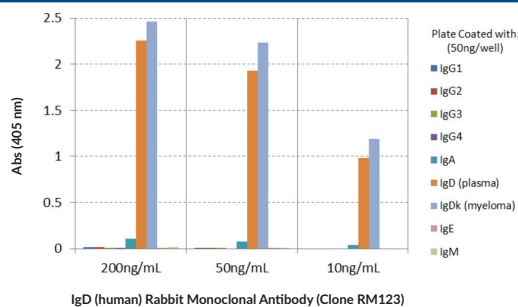
Overview and Properties

Contents:	This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonym:	Immunoglobulin D
Immunogen:	Human IgD
Cross Reactivity:	(+) IgD; (-) Human IgG, IgM, IgA, IgE
Species Reactivity:	(+) Human
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:	RM123
Host:	Rabbit
Isotype:	IgG
Application:	ELISA; the recommended starting concentration is 25-200 ng/well (for capture) and 0.01–0.1 µg/ml (for detection). Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

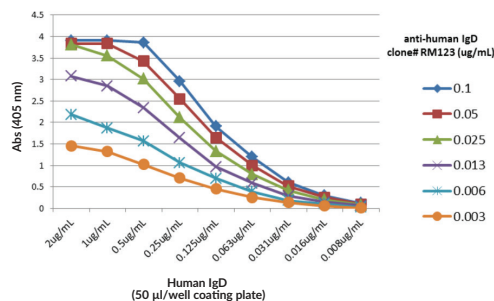
Images



Sandwich ELISA using IgD (human) Rabbit Monoclonal Antibody (Clone RM123) as the capture antibody and Ig Light Chain (human) Monoclonal Antibody - Biotinylated (Clone RM129) (Item No. 32112) as the detection antibody, followed by an alkaline phosphatase-conjugated streptavidin.



ELISA of human immunoglobulins. IgD (human) Rabbit Monoclonal Antibody (Clone RM123) reacts to IgD (from plasma) and IgDk (from myeloma) and not to human IgG, IgM, IgA, or IgE. The plate was coated with 50 ng/well of different immunoglobulins. IgD (human) Rabbit Monoclonal Antibody (Clone RM123) was used as the primary antibody and an alkaline phosphatase-conjugated anti-rabbit IgG was used as the secondary antibody.



A Titer ELISA using IgD (human) Rabbit Monoclonal Antibody (Clone RM123). The plate was coated with different amounts of human IgD (from plasma). A serial dilution of IgD (human) Rabbit Monoclonal Antibody (Clone RM123) 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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Description

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.¹ Human IgD is composed of two Ig δ heavy chains of approximately 50 kDa each and two Ig κ or Ig λ light chains of approximately 25 kDa each.^{2,3} 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.^{1,3} IgD levels increase during B cell maturation and are regulated by alternative splicing of an mRNA transcript that is common to the μ and δ heavy chains of IgM and IgD, respectively.^{1,4} 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.⁶ 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.⁷ IgD binds to basophil and mast cell lines, as well as the respiratory pathogens *M. catarrhalis* and *H. influenzae*, *in vitro*.⁸ 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.⁹ Cayman's IgD (human) Rabbit Monoclonal Antibody (Clone RM123) can be used for ELISA.

References

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