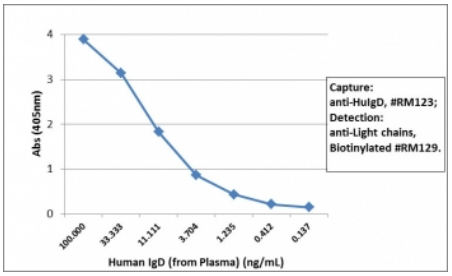
Recombinant Human IgD Antibody [clone RM123] (R20185)

Catalog No.	Formulation	Size
R20185-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

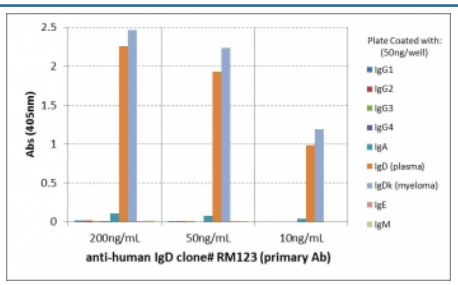
Recombinant RABBIT MONOCLONAL

Bulk quote request

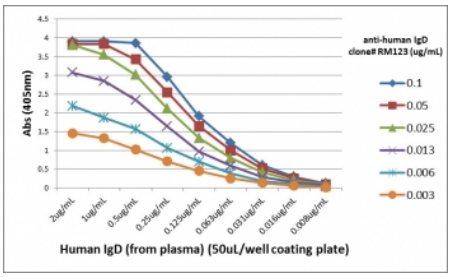
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM123
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01880
Gene ID	3495
Applications	ELISA : 25ng/well-200ng/well (Capture); 0.01-0.1ug/ml (Detection)
Limitations	This recombinant Human IgD antibody is available for research use only.



Sandwich ELISA of human plasma using recombinant Human IgD antibody as the capture (100ng/well) and biotinylated anti-human light chains (?+?) antibody RM129 as the detect, followed by an alkaline phosphatase conjugated streptavidin.



ELISA of hIgs shows recombinant Human IgD antibody reacts to IgD from human plasma and IgD,? from human myeloma. No cross reactivity with IgG, IgM, IgA, or IgE.



ELISA Titration: the plate was coated with different amounts of human IgD (from plasma). A serial dilution of recombinant Human IgD antibody was used as the primary and an alkaline phosphatase conjugated anti-rabbit IgG as the secondary.

Description

The Recombinant Human IgD antibody is produced as a recombinant reagent that reflects the unique structure and function of human immunoglobulin D. IgD is one of the least abundant antibody isotypes in serum, typically present at low concentrations compared with IgG, IgA, and IgM. Despite its scarcity, IgD plays an important role in B cell biology and immune regulation. It is expressed on the surface of immature B lymphocytes along with IgM, where it contributes to antigen receptor signaling and the initiation of adaptive immune responses. The Recombinant Human IgD antibody reproduces these structural features while lacking antigen specificity, making it a reliable isotype control and assay reference.

Structurally, IgD is composed of two heavy and two light chains forming the standard immunoglobulin Y shaped architecture. The heavy chain constant region of IgD is distinct from other isotypes, providing unique effector functions. Surface IgD acts as part of the B cell receptor complex, while secreted IgD can interact with basophils and mast cells, influencing antimicrobial immunity and mucosal defense. The Recombinant Human IgD antibody is engineered to maintain these subclass specific properties without antigen recognition, ensuring that any signal observed in immunoassays represents background rather than true antigen binding.

In laboratory applications, the Recombinant Human IgD antibody is widely used in flow cytometry to establish baseline fluorescence and reveal nonspecific staining in B cell populations. In immunohistochemistry, it identifies background reactivity in lymphoid tissues where IgD is expressed on follicular B cells. In ELISA, it serves as a negative control to verify assay specificity and to confirm that signals arise from antigen dependent binding. Recombinant expression ensures uniformity across lots, eliminating variability common with serum derived IgD reagents.

This antibody is also valuable for research into B cell development and function. By providing a standardized recombinant control, the Recombinant Human IgD antibody allows investigators to differentiate true B cell receptor mediated activity from nonspecific background. It is also useful in method development, helping to optimize blocking strategies, secondary antibody performance, and detection systems. Synonym terms such as recombinant human immunoglobulin D antibody and recombinant IgD isotype control antibody improve product discoverability for researchers under alternate nomenclature.

By delivering validated and reproducible detection, the Recombinant Human IgD antibody ensures accuracy in both basic immunology and translational research. NSJ Bioreagents supplies this reagent under strict quality control standards, giving scientists confidence in its performance across flow cytometry, ELISA, and histological applications. With the Recombinant Human IgD antibody, researchers can reliably separate antigen specific results from nonspecific background, strengthening investigations into the unique biology of IgD and its role in immune regulation.

This recombinant Human IgD antibody reacts to human IgD. No cross reactivity with human IgG, IgM, IgA, or IgE.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Human IgD antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human IgD was used as the immunogen for this recombinant Human IgD antibody.

Storage

Store the recombinant Human IgD antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).