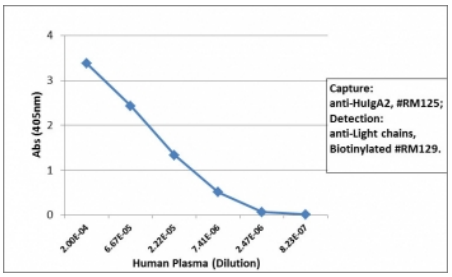
Recombinant Human IgA2 Antibody [clone RM125] (R20184)

Catalog No.	Formulation	Size
R20184-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

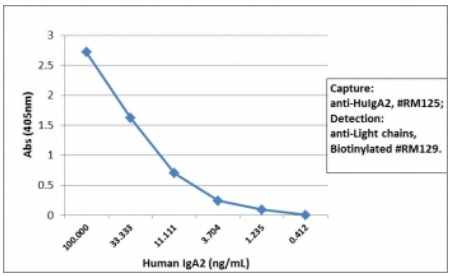
Recombinant RABBIT MONOCLONAL

Bulk quote request

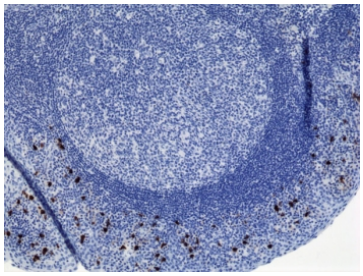
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM125
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01877
Gene ID	3494
Applications	ELISA : 50ng/well-200ng/well (Capture); 0.05-0.2ug/ml (Detection) Immunocytochemistry : 0.5-2ug/ml Immunohistochemistry : 0.1-1ug/ml
Limitations	This recombinant Human IgA2 antibody is available for research use only.



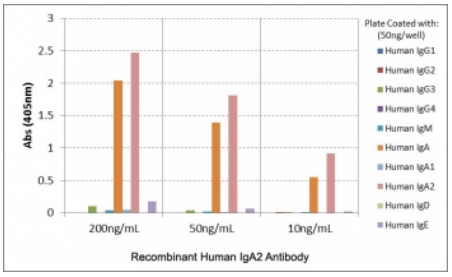
Sandwich ELISA of human plasma using recombinant Human IgA2 antibody as the capture (100ng/well), and biotinylated anti-human light chains (Îº+Î») antibody clone RM129 as the detect, followed by an alkaline phosphatase conjugated streptavidin.



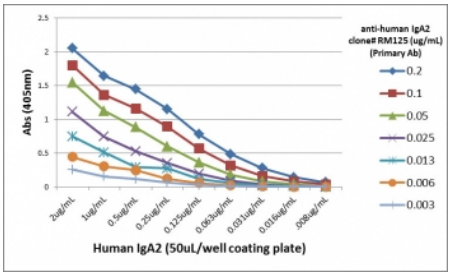
Sandwich ELISA of human IgA2 using recombinant Human IgA2 antibody as the capture (100ng/well), and biotinylated anti-human light chains (Îº+Î») antibody clone RM129 as the detect, followed by an alkaline phosphatase conjugated streptavidin.



IHC testing of FFPE human tonsil with recombinant Human IgA2 antibody (clone RM125). A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.



ELISA of human immunoglobulins shows recombinant Human IgA2 antibody reacts only to IgA2. No cross reactivity with IgA1, IgG, IgM, IgD, or IgE.



ELISA Titration: the plate was coated with different amounts of human IgA2. A serial dilution of recombinant Human IgA2 antibody was used as the primary and an alkaline phosphatase conjugated anti-rabbit IgG as the secondary.

Description

The Recombinant Human IgA2 antibody is produced as a recombinant reagent that represents the IgA2 subclass of human immunoglobulin A. IgA2 is especially abundant at mucosal surfaces in the gastrointestinal and respiratory tracts, where it contributes to frontline immune defense. Unlike IgA1, which is dominant in circulation, IgA2 is more resistant to proteolytic cleavage by bacterial enzymes due to its shorter hinge region. This structural adaptation makes IgA2 particularly well suited to function in environments with high microbial exposure. The Recombinant Human IgA2 antibody preserves these features while being engineered without antigen specificity, providing a reliable isotype control and reference reagent.

Structurally, IgA2 maintains the characteristic immunoglobulin fold of two heavy and two light chains but contains a truncated hinge region compared to IgA1. This shorter hinge reduces susceptibility to degradation by bacterial proteases, an advantage in mucosal niches rich in microbial flora. The Fc portion of IgA2 engages FcÃŽÂ±RI receptors, mediating effector functions such as phagocytosis and release of inflammatory mediators. The Recombinant Human IgA2 antibody mimics these subclass specific features while eliminating antigen binding capacity, enabling accurate measurement of nonspecific background in experimental assays.

In research applications, the Recombinant Human IgA2 antibody is valuable in ELISA, where it provides a negative control to ensure that observed signals arise from antigen antibody binding rather than plate interactions. In flow cytometry, it defines baseline fluorescence and identifies nonspecific binding to Fc receptors. In immunohistochemistry, the Recombinant Human IgA2 antibody highlights background reactivity in tissues where mucosal immune responses are active. Recombinant production ensures consistent performance across production lots, eliminating variability associated with hybridoma derived controls.

This antibody is particularly useful in comparative studies of IgA subclasses. By analyzing IgA1 and IgA2 side by side, researchers can explore how hinge region differences shape immune responses at mucosal sites. The Recombinant

Human IgA2 antibody provides the standardized control needed to ensure reliable results in these experiments. Synonym phrases such as recombinant human immunoglobulin A2 antibody and recombinant IgA2 isotype control antibody broaden search accessibility for investigators seeking equivalent reagents.

By providing validated and reproducible detection, the Recombinant Human IgA2 antibody enhances accuracy and reliability in both basic and translational studies. NSJ Bioreagents supplies this reagent under rigorous quality standards, enabling scientists to depend on consistent behavior across assay platforms. With the Recombinant Human IgA2 antibody, researchers can confidently separate antigen specific interactions from nonspecific background, strengthening investigations of mucosal immunity and systemic immune regulation.

This recombinant Human IgA2 antibody reacts to human IgA2. No cross reactivity with human IgA1, IgG, IgM, IgD, or IgE.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant Human IgA2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human IgA2 was used as the immunogen for this recombinant Human IgA2 antibody.

Storage

Store the recombinant Human IgA2 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).