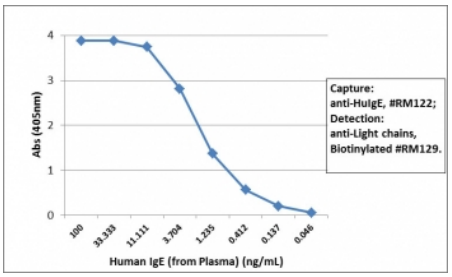
Recombinant Human IgE Antibody [clone RM122] (R20186)

Catalog No.	Formulation	Size
R20186-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

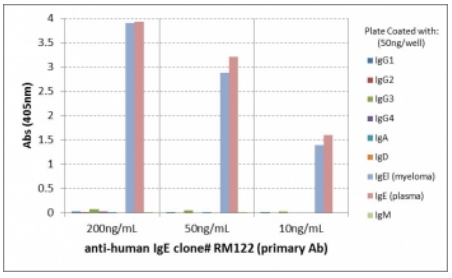
Recombinant RABBIT MONOCLONAL

Bulk quote request

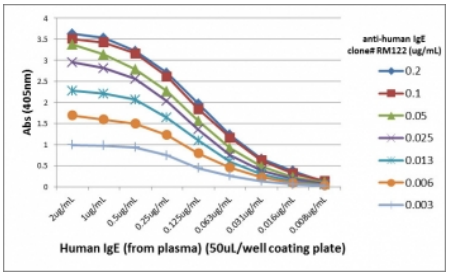
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM122
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01854
Gene ID	3497
Applications	ELISA : 10ng/well-100ng/well (Capture); 0.01-0.1ug/ml (Detection)
Limitations	This recombinant Human IgE antibody is available for research use only.



Sandwich ELISA with human plasma using recombinant Human IgE antibody as the capture (25ng/well) and biotinylated anti-human light chains (Îº+Î») antibody clone RM129 as the detect, followed by an alkaline phosphatase conjugated streptavidin.



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



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

Description

The Recombinant Human IgE antibody is produced as a recombinant reagent that reflects the structure and functions of human immunoglobulin E. IgE is the least abundant antibody isotype in serum under normal conditions, yet it plays an outsized role in allergy and hypersensitivity. IgE binds with very high affinity to FcÃŽÂµRI receptors on mast cells and basophils, arming them to respond immediately when antigens such as allergens or parasites are encountered. Crosslinking of IgE bound to FcÃŽÂµRI triggers rapid release of histamine and other mediators, driving inflammation and allergic responses. The Recombinant Human IgE antibody reproduces the constant region structure of this isotype but lacks antigen specificity, making it an essential isotype control and reference reagent for immunoassays.

Structurally, IgE is composed of two heavy and two light chains with an extended Fc region compared to IgG. This Fc region contains additional constant domains that contribute to its unique receptor binding profile. The high affinity binding of IgE to FcÃŽÂµRI is virtually irreversible, ensuring that mast cells and basophils remain sensitized for long periods. IgE also interacts with FcÃŽÂµRII (CD23), a low affinity receptor expressed on B cells and other immune cells, further expanding its immunoregulatory roles. The Recombinant Human IgE antibody maintains these constant region features while eliminating antigen binding capacity, ensuring that experimental readouts represent background binding rather than specific antigen recognition.

In research applications, the Recombinant Human IgE antibody is widely used as a control in ELISA, where it helps confirm that observed signals derive from antigen antibody interactions rather than nonspecific adherence. In flow cytometry, it defines baseline fluorescence and reveals nonspecific interactions with FcÃŽÂµ receptors. In immunohistochemistry, the Recombinant Human IgE antibody highlights background staining in tissues such as lung or skin, where mast cells are abundant. Recombinant expression guarantees reproducibility across production lots, minimizing variability associated with serum derived IgE.

This reagent is especially valuable in studies of allergic disease, asthma, and parasitic infection, where IgE plays central roles. By providing a standardized recombinant control, the Recombinant Human IgE antibody allows scientists to evaluate assay specificity and interpret results with confidence. Synonym phrases such as recombinant human immunoglobulin E antibody and recombinant IgE isotype control antibody improve discoverability for investigators searching under alternate terminology.

By delivering validated and reproducible performance, the Recombinant Human IgE antibody enhances reliability in both immunology research and translational studies. NSJ Bioreagents ensures rigorous quality control for this reagent, giving researchers confidence in flow cytometry, ELISA, and histology applications. With the Recombinant Human IgE antibody, scientists can reliably distinguish antigen specific results from nonspecific background, supporting investigations into the unique biology of IgE and its role in allergic inflammation.

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

Application Notes

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

Immunogen

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

Storage

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