

PRODUCT INFORMATION

IgA1 and IgA2 Matched Antibody Pair (Clones RM128/RM129)

Item No. 42881

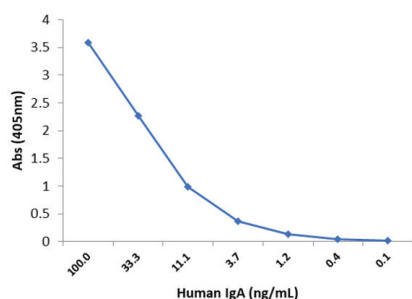
Overview and Properties

Antibody	Item Name	Storage Buffer	Clone	Applications*
Capture	IgA1 and IgA2 (human) Rabbit Monoclonal Antibody (Clone RM128)	100 µg at 1.0 mg/ml in PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide	RM128	Sandwich ELISA: 50-200 ng/well
Detection	Ig Light Chain (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM129)	25 µg at 1.0 mg/ml in PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide	RM129	Sandwich ELISA: 0.1-0.5 µg/ml

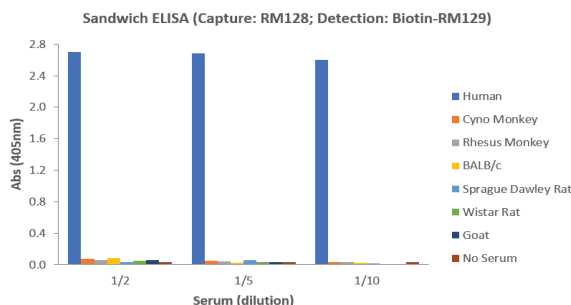
*Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Contents: Contains protein A-affinity purity antibody.
Synonym: Immunoglobulin A
Cross Reactivity: (+) Human
Species Reactivity: (+) Human IgA; (-) Human IgG, IgE, IgM, or IgD; (-) Cynomolgus monkey, rhesus monkey, mouse, rat, or goat IgA
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Host: Rabbit
Isotype: IgG

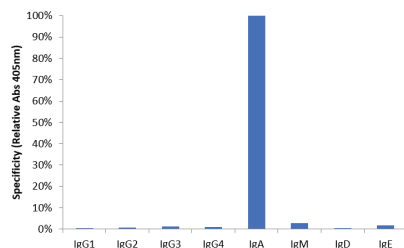
Images



ELISA of IgA1 and IgA2 Matched Antibody Pair (Clones RM128/RM129) using IgA1 and IgA2 (human) Rabbit Monoclonal Antibody (Clone RM128) (Item No. 32114) as the capture antibody (100 ng/well) and Ig Light Chain (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM129) (Item No. 32112) (0.2 µg/ml) as the detection antibody, followed by an alkaline phosphatase-conjugated streptavidin.



Sandwich ELISA using IgA1 and IgA2 Matched Antibody Pair (Clones RM128/RM129) with IgA1 and IgA2 (human) Rabbit Monoclonal Antibody (Clone RM128) (Item No. 32114) as the capture antibody and Ig Light Chain (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM129) (Item No. 32112) as the detection antibody shows no cross-reactivity to monkey, mouse, rat, or goat IgA.



Sandwich ELISA using IgA1 and IgA2 Matched Antibody Pair (Clones RM128/RM129) shows no cross-reactivity with human IgG, IgE, IgM, or IgD. The plate was coated with IgA1 and IgA2 (human) Rabbit Monoclonal Antibody (Clone RM128) (Item No. 32114) (50 ng/well). Different immunoglobulin samples (0.2 µg/ml) were added and Ig Light Chain (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM129) (Item No. 32112) (0.2 µg/ml) was used as a detection antibody, followed by alkaline phosphatase-conjugated streptavidin.

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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PRODUCT INFORMATION



Description

Immunoglobulin A (IgA) is a member of the immunoglobulin superfamily of glycoproteins with roles in host defense against intestinal pathogens and both quantitative and qualitative control of host commensal microbiota composition.^{1,2} Human IgA consists of two identical light chains of approximately 25 kDa each, as well as two heavy chains of approximately 60 kDa each that contain C-terminal extensions, known as tailpieces, which allow for IgA oligomerization.^{3,4} There are two IgA subclasses, IgA1 and IgA2, which are encoded by *IGHA1/α1* and *IGHA2/α2*, respectively, and have differences primarily in the hinge and heavy chain constant regions.⁴ IgA is produced by B cells and later secreted by plasma cells and is the most abundant antibody on mucosal surfaces.^{1,2} It binds to Igα Fc receptor I (FcαRI) and the IgM- and IgA-binding high affinity Igα and Igμ Fc receptor (Fcα/μ-R), which are both involved in mediating immune responses.^{5,6} Serum levels of IgA are decreased in patients with IgA deficiency, who are typically asymptomatic but may have allergy or autoimmune disorders or experience recurrent infections.⁷ IgA deposits in vessels and, in certain cases, the glomerulus in children with IgA vasculitis (IgAV), a disorder characterized by vascular inflammation, purpura, joint pain, gastrointestinal disturbances, and, in severe cases, glomerulonephritis.⁸ IgA levels are increased in certain gastrointestinal tract and liver diseases, with IgA2 levels increased to a higher degree than IgA1 levels in patients with Crohn's disease and alcoholic liver disease.⁹ Cayman's IgA1 and IgA2 Matched Antibody Pair (Clones RM128/RM129) contains IgA1 and IgA2 (human) Rabbit Monoclonal Antibody (Clone RM128) (Item No. 32114) as a capture antibody, Ig Light Chain (human) Rabbit Monoclonal Antibody - Biotinylated (Clone RM129) (Item No. 32112) as a detection antibody, and a sample diluent to reduce non-specific background. The antibody pair can be used for sandwich ELISAs and other sandwich assays for the specific detection of IgA1 and IgA2 in human samples.

References

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