

Datasheet for 612-4607

Rat IgM (mu chain) Antibody Biotin Conjugated**Overview**

Description:	Rabbit Anti-Rat IgM (mu chain) Antibody Biotin Conjugated - 612-4607
Item No.:	612-4607
Size:	1.5 mg
Applications:	Microarray
Reactivity:	Rat
Host Species:	Rabbit

Product Details

Background:	Anti-Rat IgM antibody generated in rabbit specifically detects rat IgM heavy chain. Immunoglobulin M is the largest antibody isotype and the first to be secreted against an initial exposure to antigen. IgM is predominantly produced in the spleen. Formed from covalently linking 5 immunoglobulins together, the approximate molecular weight of IgM is 900kDa and possesses 10 binding sites (though due to the size of most antigens, not all sites are capable of binding at once). Due to this large size, IgM is typically isolated to the serum. Anti-Rat IgM antibody is ideal for investigators in Immunology, Microbiology, and Cell Biology. This Anti-Rat IgM antibody is conjugated to biotin.
Synonyms:	Rabbit Anti-Rat IgM (mu chain) Antibody biotin Conjugated, Rabbit Anti-Rat IgM mu Antibody BAC Conjugation
Host Species:	Rabbit
Specificity:	IgM μ chain
Conjugate:	Biotin
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Rat
Immunogen:	Rat IgM whole molecule

Purity/Specificity:	Anti-RAT IgM (mu chain) Antibody was prepared from monospecific antiserum by immunoaffinity chromatography using Rat IgM coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Purified Anti-RAT IgM was Biotin Conjugated. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-biotin, anti-Rabbit Serum, Rat IgM and Rat Serum. No reaction was observed against other rat heavy or light chain proteins.
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Application Details

Suggested Applications:	Microarray (Based on references)
Application Note:	Anti-RAT IgM (mu chain) Antibody has been assayed against Rat IgM in a standard capture ELISA using Peroxidase Conjugated Streptavidin. A working dilution of 1:15,000 to 1:70,000 of the concentration is suggested for this product. Rat IgM antibody is suitable for immunoassays including western blot and ELISA.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000 - 1:100,000
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

Formulation

Physical State:	Lyophilized
Concentration:	1.5 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

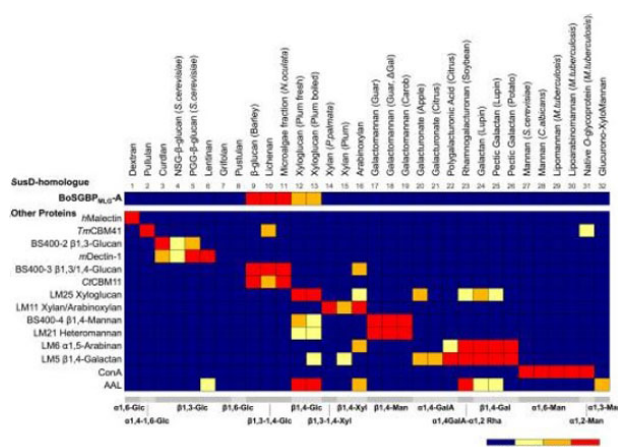
Shipping & Handling

Shipping Condition:	Ambient
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Storage Condition: Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Figure

Carbohydrate binding by BoSGBPMLG-A using a structurally diverse saccharide microarray. Heatmap comparing the binding patterns of BoSGBPMLG-A and selected control proteins. The microarray comprised soluble saccharides of different origins (fungal, bacterial, plant, and microalgal polysaccharides or glycoproteins) (see Table S1); the major backbone sequences are depicted at the bottom. The heatmap represents the relative binding intensities calculated as the percentage of the fluorescence signal intensity at 150 pg (0.5 mg/ml)/spot given by the saccharide probe most strongly bound by each protein (normalized as 100%). Results are detailed in Table S2. *S. cerevisiae*, *Saccharomyces cerevisiae*; *N. oculata*, *Nanochloropsis oculata*; *P. palmata*, *Palmaria palmata*; *C. albicans*, *Candida albicans*; *M. tuberculosis*, *Mycobacterium tuberculosis*; hMalectin, human malectin; TmCBM41, CBM41 of *Thermotoga maritima*; mDectin-1, murine dectin-1; CtCBM11, CBM11 of *Clostridium thermocellum*; ConA, concanavalin A; AAL, *Aleuria aurantia* lectin. FIG 2. PMID: 34817219.

References

- Correia VG et al. Mapping Molecular Recognition of β 1, 3-1, 4-Glucans by a Surface Glycan-Binding Protein from the Human Gut Symbiotic *Bacteroides ovatus*. *Microbiol Spectr.* (2021)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.