

Datasheet for 610-4107**Mouse IgM (mu chain) Antibody****Overview**

Description:	Rabbit Anti-Mouse IgM (mu chain) Antibody - 610-4107
Item No.:	610-4107
Size:	2 mg
Applications:	ELISA, Other
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-Mouse IgM mu heavy chain antibody generated in rabbit detects specifically Mouse IgM mu 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-Mouse IgM antibody is ideal for investigators in Immunology, Microbiology, and Cell Biology.
Synonyms:	Rabbit Anti-Mouse IgM (mu chain) Antibody, Rabbit Anti-Mouse IgM mu chain Antibody
Host Species:	Rabbit
Specificity:	IgM μ chain
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Mouse
Immunogen Type:	Native Protein
Immunogen:	Mouse IgM whole molecule

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

Tested Applications:	ELISA
Suggested Applications:	Other (Based on references)
Application Note:	Anti-Mouse IgM mu heavy chain antibody has been tested by ELISA and is suitable for use in immunoelectrophoresis, western-blot, competitive western-blot, ELISA and competitive ELISA assays. Specific conditions for reactivity and signal detection should be optimized by the end user.
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:	1:500 - 1:2,500
WB:	1:2,000 - 1:10,000

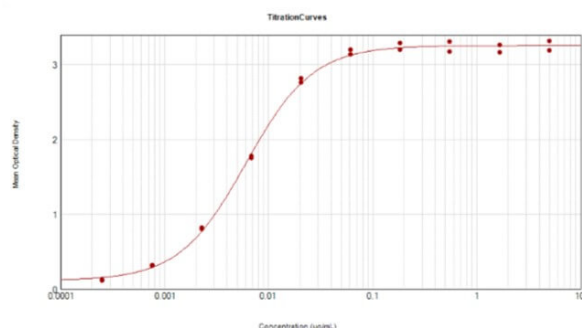
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	2.2 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:	None

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ELISA

ELISA Results of Rabbit Anti-Mouse IgM Antibody tested against purified Mouse IgM. Each well was coated in duplicate with 10 µg of Mouse IgM (p/n 010-0107). The starting dilution of antibody was 5 µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% Fish Gel/PBS Blocking buffer (p/n MB-066), Goat Anti-Rabbit IgG mx10 HRP conjugated (p/n 611-103-122), and TMB substrate (p/n TMBE-1000).

References

- Jain M et al. Integrin $\alpha 9$ regulates smooth muscle cell phenotype switching and vascular remodeling. *JCI Insight*. (2021)
- Fernando H Y Cesena et al. Immune-modulation by polyclonal IgM treatment reduces atherosclerosis in hypercholesterolemic apoE^{-/-} mice. *Atherosclerosis*. (2012)

Disclaimer

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