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Datasheet for 610-4140

Mouse IgG1 Antibody

Overview

Description:	Rabbit Anti-Mouse IgG1 (Gamma 1 chain) Antibody - 610-4140
Item No.:	610-4140
Size:	1 mg
Applications:	Dot Blot, ELISA, FC
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-Mouse IgG1 Antibody generated in rabbit detects reactivity to Mouse IgG1 (Gamma 1 chain). Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. IgG1 chain constitutes 66% of the IgG subclass and has a high affinity for binding to the Fc receptor of phagocytic cells. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition.
Synonyms:	Rabbit Anti-Mouse IgG1 (Gamma 1 chain) Antibody, Rabbit Anti-Mouse IgG1 Antibody
Host Species:	Rabbit
Specificity:	IgG1
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Mouse
Immunogen:	Mouse IgG1 heavy chain

Purity/Specificity:	Anti-Mouse IgG1 antibody was prepared from monospecific antiserum by immunoaffinity chromatography using antigens 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 Serum, Mouse IgG and Mouse IgG1. Specificity was confirmed by ELISA. For IgG2a, IgG2b and IgG3 reactivity was less than 5% against target (IgG1, IgG).

Application Details

Tested Applications:	Dot Blot, ELISA
Suggested Applications:	FC (Based on references)
Application Note:	Mouse IgG1 secondary antibody is available in a variety of formats. Anti-Mouse IgG1 Antibody has been tested by ELISA and dot blot and is suitable for ELISA, Immunohistochemistry western blotting as well as other anti IgG1 antibody based assays.
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

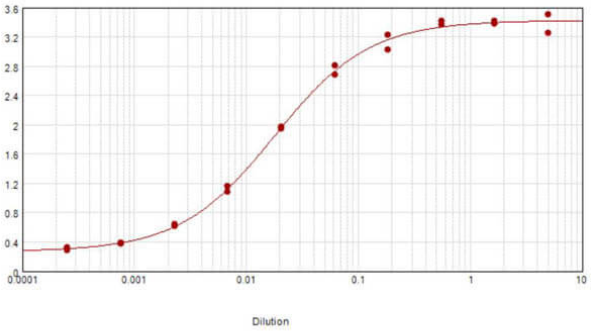
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.14 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

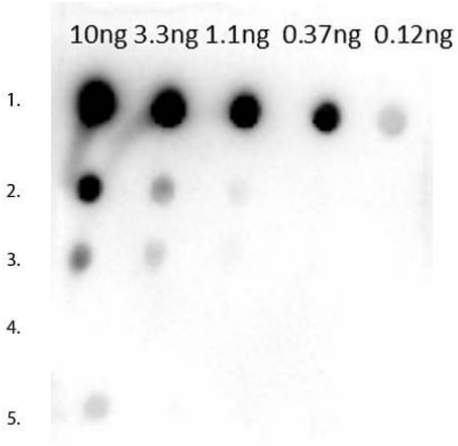
Shipping & Handling

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 purified Rabbit anti-Mouse IgG1 tested against purified Mouse IgG1. Each well was coated in duplicate with 1.0 µg of Mouse IgG1 (p/n 010-0141). The starting dilution of antibody was 5µg/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 Blocking buffer (p/n MB-060-1000), Goat anti-Rabbit HRP (p/n 611-103-122), and TMB substrate (p/n TMBE-1000).



Dot Blot
Dot Blot of Rabbit Anti-Mouse IgG1 Antibody. Tested against dilutions 10ng, 3.3ng, 1.1ng, 0.37ng, 0.12ng. Lane 1: Mouse IgG1 (p/n 010-0140). Lane 2: Mouse IgG2a (p/n 010-0141). Lane 3: Mouse IgG2b (p/n 010-0142). Lane 4: Mouse IgG3 (p/n 010-0143). Lane 5: Mouse IgM (p/n 610-1107). Primary Antibody: Rabbit anti-Mouse IgG1 at 1µg/mL for 1 hour at RT. Secondary Antibody: Goat anti-Rabbit HRP (p/n 611-103-122) at 1:40,000. Blocking Buffer: BlockOut (p/n MB-073) for 30 min at RT.

References

- Rudert J et al. Rational design of a modular mRNA vaccine platform for rapid adaptation to SARS-CoV-2 variants. *Sci Rep.* (2026)
- Zsolt Sebestyén et al. Long wavelength fluorophores and cell-by-cell correction for autofluorescence significantly improves the accuracy of flow cytometric energy transfer measurements on a dual-laser benchtop flow cytometer. *Cytometry.* (2002)

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