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Datasheet for 010-001-331

Mouse IgG1 Lambda isotype Control

Overview

Description:	Mouse IgG1 Lambda (λ) Isotype Control - 010-001-331
Item No.:	010-001-331
Size:	1 mg
Applications:	ELISA, SDS-PAGE, Biochemical Assay
Origin:	Mouse

Product Details

Background:	Mouse isotype controls are used in flow cytometry, western blot and ELISA and differentiate between immunoglobulin classes and subclasses. Isotype controls allow for the genetic variations or differences in the constant regions of the heavy and light chains. In mouse there are six relevant heavy chain isotypes and two light chain isotypes: heavy chain alpha - IgA, gamma - IgG 1, 2a, 2b, 3 and μ - IgM, light chain kappa and lambda. IgG1 is the most abundant of the four IgG subclasses. This isotype control possesses lambda light chains.
Synonyms:	Mouse immunoglobulin gamma lambda, Mouse IgG1 isotype control, Mouse IgG1 Lambda
Species of Origin:	Mouse
Clone ID:	MG1L
Format:	IgG1
Type:	Native Protein

Target Details

Purity/Specificity:	Mouse Isotype control has been prepared from concentrated cell culture supernatant by immunoaffinity chromatography using protein A. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Mouse IgG and anti-Mouse serum. Isotyping assay resulted non-reactive with antisera to mouse IgG2a, IgG2b, IgG3, IgA, IgM. Light chain composition has been confirmed by SDS-PAGE.
Relevant Links:	• 010-001-331 SDS

Application Details

Tested Applications:	ELISA, SDS-PAGE
Suggested Applications:	Biochemical Assay (Based on references)
Application Note:	Mouse IgG1 lambda isotype control has been tested in SDS-Page and ELISA and can be utilized as a control or standard reagent in Flow cytometry, Western Blotting, and ELISA experiments where determination of sample isotype is important.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
FC:	1:1000-1:5000
FLISA:	User Optimized
IF:	User Optimized
WB:	User Optimized

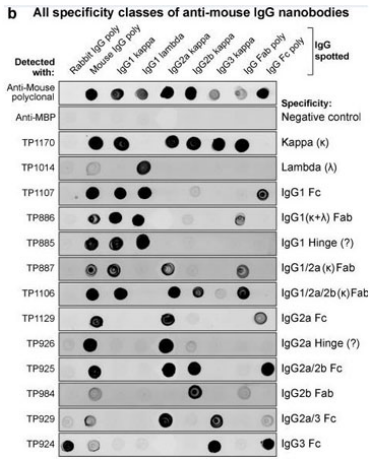
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.013 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

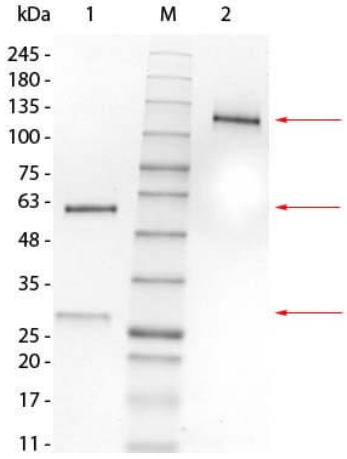
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. Mouse IgG1 Lambda isotype control is stable 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Dot Blot

Characterization of the anti-IgG nanobody toolbox. (a) Overview of all identified anti-IgG nanobodies. The nanobodies obtained were characterized for IgG subclass and light chain specificity, epitope location on Fab or Fc fragment, and species cross reactivity. The protein sequences of all anti-IgG nanobodies can be found in Table S1. Nb, nanobody; CDR III, complementarity-determining region III; Gp, guinea pig; Hs, human; κ, κ light chain; λ, lambda light chain; Fab, fragment antigen-binding, Fc, fragment crystallizable. (a. not shown) (b) IgG subclass reactivity profiling of selected anti–mouse IgG nanobodies representing all identified specificity groups. The indicated IgG species were spotted on nitrocellulose strips, and the strips were blocked with 4% (wt/vol) milk in 1× PBS. Then 300 nM of the indicated tagged nanobodies were added in milk. After washing with 1× PBS, bound nanobodies were detected using a fluorescence scanner. Note that the signal strength on polyclonal IgG depends on the relative abundance of the specific subclass (e.g., IgG2b and IgG3 are low abundance) or light chain (κ/λ ratio = 99:1). TP885 and TP926 showed no detectable binding to polyclonal Fab or Fc fragment and might bind to the hinge region. (p/n 010-001-331 Mouse IgG1 λ lambda, 010-0105 Mouse Fab fragment). Fig 1. PMID: 29263082.



SDS-PAGE

SDS-PAGE of Mouse IgG1 Lambda Isotype Control. Lane 1: Mouse IgG1 Lambda Isotype Control, Reduced. M: Opal Pre-stained Ladder (p/n MB-210-0500). Lane 2: Mouse IgG1 Lambda Isotype Control, Non-reduced. Load: 1.0 µg per lane. Predicted/Observed: 120 kDa Non-reduced, 55 and 25 Reduced.

References

- Pleiner T et al. A toolbox of anti–mouse and anti–rabbit IgG secondary nanobodies. *J Cell Biol.* (2018)

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