

Datasheet for 010-001-341

Mouse IgA Kappa isotype Control

Overview

Description:	Mouse IgA Kappa (κ) Isotype Control - 010-001-341
Item No.:	010-001-341
Size:	1 mg
Applications:	ELISA, SDS-PAGE, Other
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.
Synonyms:	Mouse IgA isotype control, Mouse IgA subclass isotype control, Mouse IgA Kappa
Species of Origin:	Mouse
Clone ID:	MAK
Format:	IgA
Type:	Native Protein

Target Details

Purity/Specificity:	Mouse IgA Kappa isotype control was prepared from concentrated cell culture supernatant by a multi-step process which includes size exclusion chromatography and antibody affinity chromatography. Analysis by immunoelectrophoresis resulted in a single precipitin arc against anti-Mouse IgA alpha and anti-Mouse serum. Isotyping assay resulted non-reactive with antisera to mouse IgG1, IgG2a, IgG2b, IgG3, IgM. SDS-PAGE shows a band at 60 kDa corresponding to alpha heavy chain.
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Application Details

Tested Applications:	ELISA, SDS-PAGE
Suggested Applications:	Other (Based on references)
Application Note:	Mouse IgA kappa isotype control has been tested in ELISA and SDS-Page 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

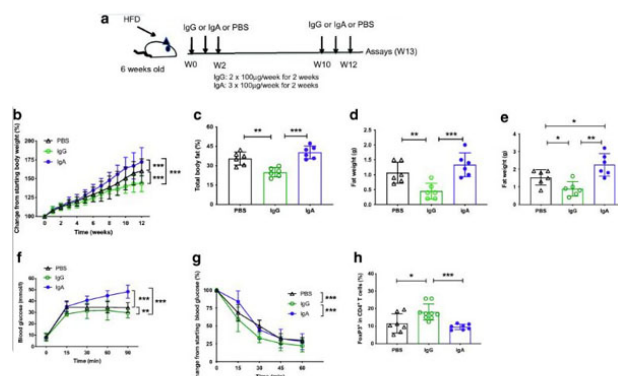
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.010 mg/mL by UV absorbance at 280 nm
Buffer:	0.1 M Tris Chloride, 0.5 M Sodium Chloride, pH 8.0
Preservative:	0.1% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

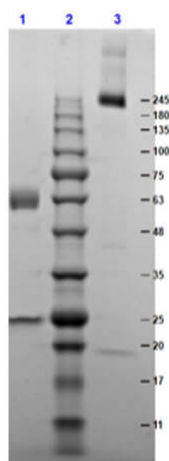
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. This product is stable 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing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

Images



ELISA

IgG infusion in Aid-/- mice ameliorates the exacerbated HFDIO and promotes Treg cells in adipose tissue. Six-week-old male Aid+/+ and Aid-/- mice were fed with HFD for 13 weeks and received purified mouse IgG (p/n D609-0100), IgA (p/n 010-001-341) or PBS by i.v. injection during the first two and last two weeks of the diet. (a) Depiction of the study design. (b) Proportional body weight change post-injection compared with starting body weight. (c-e) Proportion of total body fat assessed by Micro-CT (c) and weight of inguinal adipose tissue (d) and epididymal adipose tissue (e). (f, g) In vivo glucose (f) and insulin (g) tolerance responses from IgG-, IgA- or PBS-infused mice. Proportion of infiltrating Treg cells in the visceral fat, identified by flow cytometry, gated from live, single CD4+ T cells prior to gating on FoxP3+ cells (h). Data shown are pooled from two independent experiments. n = 6-8 per group. Data were assessed for significance using Student's t test (c-e, h) or two-way ANOVA (b, f, g). Data are presented as mean $\pm$ SD. *p<0.05, **p<0.01, ***p<0.001. W, week. Fig. 7. PMID: 35587276.



SDS-PAGE

SDS PAGE Results of Mouse IgA kappa Isotype Control. Lane 1: Mouse IgA kappa Isotype Control Reduced [1μg]. Lane 2: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 3: Mouse IgA kappa Isotype Control Non-Reduced [1μg]. 4-20% Gel, Coomassie Stained.

References

- Pearson JA et al. IgM-associated gut bacteria in obesity and type 2 diabetes in C57BL/6 mice and humans. *Diabetologia*. (2022)

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.