

Datasheet for D609-0100

Mouse Gamma Globulin Fraction

Overview

Description:	Mouse Gamma Globulin Fraction - D609-0100
Item No.:	D609-0100
Size:	100 mg
Applications:	SDS-PAGE, ELISA
Origin:	Mouse

Product Details

Background:	Gamma globulins are a class of globulins, identified by their position after serum protein electrophoresis. The most significant gamma globulins are immunoglobulins ("Igs"), more commonly known as antibodies, although some Igs are not gamma globulins, and some gamma globulins are not Igs. Globulin is one of the three main types of serum proteins, the others being albumin and fibrinogen. Some globulins are produced in the liver, while others are made by the immune system.
Synonyms:	Mouse γ -globulin, Plasma Gamma Globulin, Serum Gamma Globulin, Globulin Fractions, Gammaglobulin, mouse gamma fraction
Species of Origin:	Mouse
Type:	Native Protein

Target Details

Purity/Specificity:	Mouse Gamma Globulin was prepared from normal Mouse serum by a multi-step process which includes delipidation and salt fractionation followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in precipitin arcs against anti-Mouse Serum corresponding to gamma globulins.
Relevant Links:	D609 SDS

Application Details

Tested Applications:	SDS-PAGE
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Suggested Applications:	ELISA (Based on references)
Application Note:	Mouse gamma globulin blocking reagent has been tested by SDS-PAGE and is an ideal blocker for western blotting, ELISA, Immunohistochemistry and other detection assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
IHC:	User Optimized
WB:	User Optimized

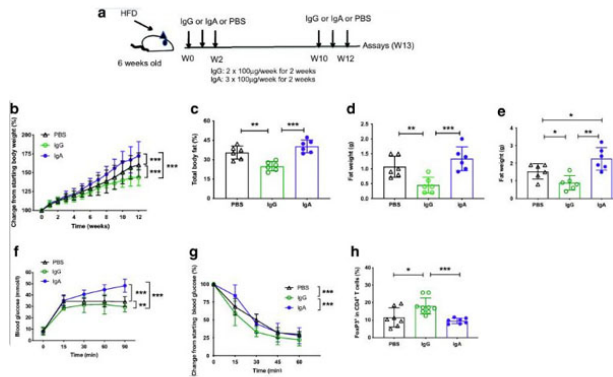
Formulation

Physical State:	Lyophilized
Concentration:	20.0 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
Reconstitution Volume:	5.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

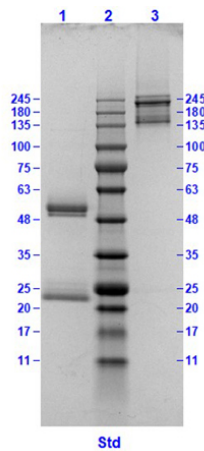
Shipping Condition:	Ambient
Storage Condition:	Store gamma globulin at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable 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



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 ± SD. **p*<0.05, ***p*<0.01, ****p*<0.001. W, week. Fig. 7. PMID: 35587276.



SDS-PAGE

SDS results of Mouse Gamma Globulin Fraction.

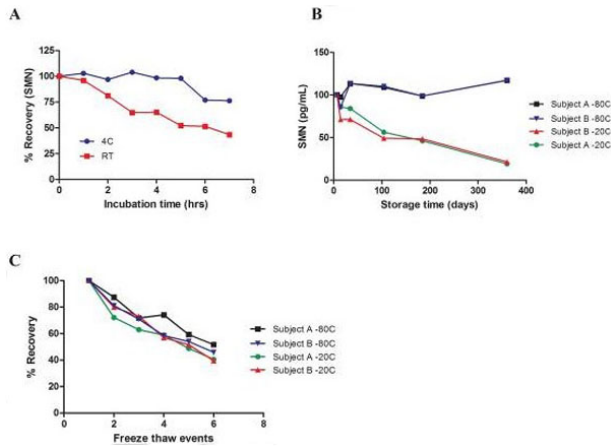
Lane 1: Ms Gamma Globulin [2μg reduced].

Lane 2: Prestained MW marker (p/n MB-210-0500).

Lane 3: Ms Gamma Globulin [2μg non-reduced].

Coomassie stained.

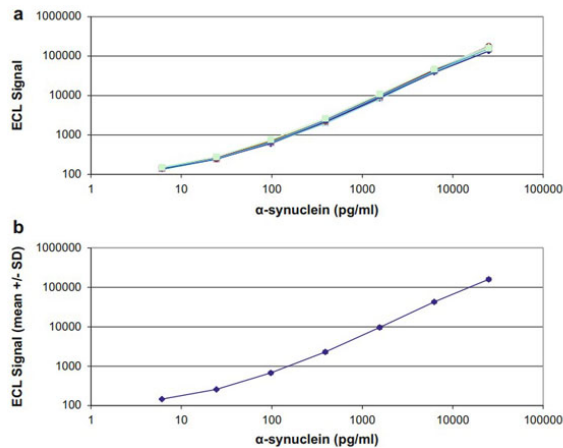
Predicted/Observed size: Reduced: 55 and 28 kDa, Non-Reduced: ~160 kDa.



ELISA

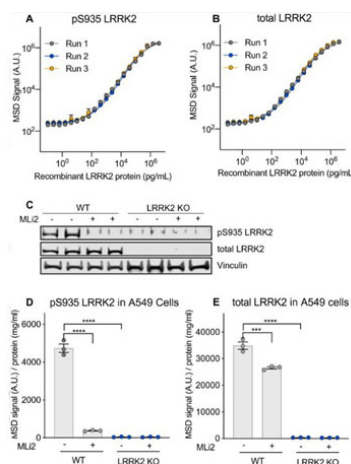
SMN protein stability in whole blood: short term, long term, and freeze / thaw events. Whole blood of healthy subjects was used in the study. (A) SMN protein was measured in previously frozen, undiluted whole blood samples incubated at 4°C or at room temperature. (B) SMN protein was measured in undiluted whole blood samples of two subjects stored at -80°C or at -20°C. (C) SMN protein levels were measured in samples of two subjects that went through freeze-thaw cycles. *FDA acceptance criteria (below 85%). Primary and secondary detection antibodies were diluted into the following buffer: 50mM Tris, 137.5 mM NaCl, 1% (w/v) BSA, 0.05% (w/v) Tween 20, 0.2% mouse gamma globulin fraction (p/n D609-0100), pH 7.5.

Fig 1. PMID: 26953792.



ELISA

Reproducibility of α-synuclein standard curves. A. Individual standard curves from 11 independent experiments. B. Mean values of ECL signals standard deviation for defined α-synuclein concentrations from the 17 experiments. Note that CVs were less than 20% over the entire range. Detection antibody solution: Dilute SULFO-TAG-labeled Syn1 clone 42/α-synuclein antibody to 1 µg/mL in sample dilution buffer supplemented with 0.1% mouse IgG (p/n D609-0100) and 0.1% goat IgG. Fig. 2. PMID: 30771170.



ELISA

Development of specific, quantitative and high-throughput assays to measure pS935 LRRK2 and total LRRK2. (A,B) Novel MSD assays to measure pS935 LRRK2 and total LRRK2 levels can detect increasing amounts of recombinant LRRK2 protein; n = 3. (C) Specific detection of pS935 LRRK2 and total LRRK2 was confirmed in WT and LRRK2 KO A549 cells with and without LRRK2 kinase inhibitor treatment (MLi-2, 500 nM, 2 h) measured by western blot analysis. (D,E)

Consistent with western blot data, the LRRK2 MSD assays specifically detected pS935 LRRK2 and total LRRK2 in A549 cells; n = 3. MSD signals were normalized for protein concentration, and data are shown as mean $\pm$ SEM with p values: one-way ANOVA with Tukey's multiple comparison test; ***p $\leq$ 0.001, ****p $\leq$ 0.0001; AU, arbitrary units.

Detection antibodies (15 μ l for 384-well) were added to each well diluted in TBST containing 25% MSD blocker A with rabbit (p/n D610-1000) and mouse gamma globin fraction (p/n D609-0100). Fig 1. PMID: 34145320.

References

- Sun S et al. Macrophage LRRK2 hyperactivity impairs autophagy and induces Paneth cell dysfunction. *Sci Immunol.* (2024)
- Bondar VV et al. Rab12 regulates LRRK2 activity by promoting its localization to lysosomes. *bioRxiv [preprint]* (2023)
- Wang X et al. Rab12 is a regulator of LRRK2 and its activation by damaged lysosomes. *Elife.* (2023)
- Pearson JA et al. IgM-associated gut bacteria in obesity and type 2 diabetes in C57BL/6 mice and humans. *Diabetologia.* (2022)
- Wang X et al. Understanding LRRK2 kinase activity in preclinical models and human subjects through quantitative analysis of LRRK2 and pT73 Rab10. *Sci Rep.* (2021)
- Kruse N et al. Quantification of alpha-synuclein in biological fluids by electrochemiluminescence-based detection. *Methods Mol Biol.* (2019)
- Zaworski, P et al. SMN Protein Can Be Reliably Measured in Whole Blood with an Electrochemiluminescence (ECL) Immunoassay: Implications for Clinical Trials. *PLoS One* (2016)

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