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Datasheet for 017-0102

Monkey IgG

Overview

Description:	Monkey IgG Whole Molecule (BULK ORDER) - 017-0102
Item No.:	017-0102
Size:	2 mg
Applications:	SDS-PAGE, ELISA
Origin:	Monkey

Product Details

Background:	Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. Immunoglobulin G binds to viruses, bacteria, as well as fungi and facilitates their destruction or neutralization via agglutination (and thereby immobilizing them), activation of the compliment cascade, and opsonization for phagocytosis. The whole IgG molecule possesses both the F(c) region, recognized by high-afinity Fc receptor proteins, as well as the F(ab) region possessing the epitope-recognition site. Both heavy and light chains of the antibody molecule are present.
Synonyms:	Monkey immunoglobulin G
Species of Origin:	Monkey
Format:	IgG
Type:	Native Protein

Target Details

Purity/Specificity:	Monkey IgG whole molecule was prepared from normal serum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Monkey IgG whole molecule was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Monkey IgG and anti-Monkey Serum.
Relevant Links:	• 017-0102 SDS

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	ELISA (Based on references)
Application Note:	Monkey IgG whole molecule has been tested by SDS-Page and can be utilized as a control or standard reagent in SDS, Western Blotting, and ELISA experiments.
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

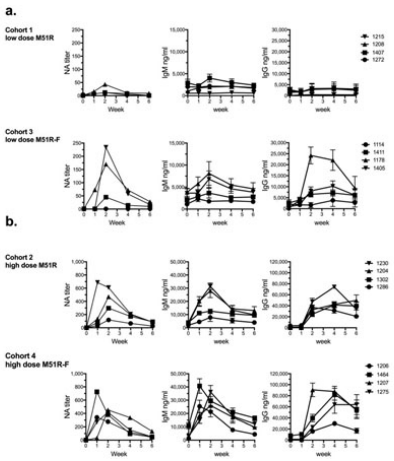
Formulation

Physical State:	Lyophilized
Concentration:	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
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

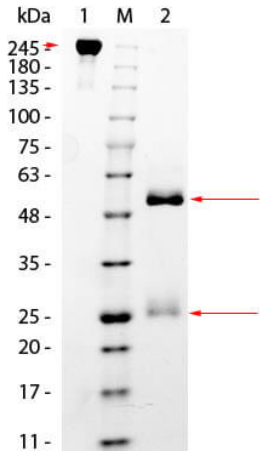
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Monkey IgG whole molecule is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

Humoral immune response. Plasmas were analyzed before vaccination (week 0, pre-immune) and at weeks 1, 2, 4 and 6 post-vaccination for anti-VSV antibodies. Neutralizing antibody (NA) titer (left panel) was defined as the dilution of serum that inhibited infection of mouse EL4 cells with M51R-eGFP by 50%. IgM [p/n 017-0107] (middle panel) and IgG [p/n 017-0102] (right panel) levels are expressed in ng/mL (mean ± SD, triplicate values), measured by ELISA with extrapolation from standard curves. Data for low dose (a) and high dose (b) vaccinations with M51R and M51R-F are shown. Note scale differences for low and high dose data. Statistical significance was determined by two-factor analysis of variance with cohort and time as the two factors. For all three antibody types, statistical significance of $p < 0.05$ (after correction for multiple comparisons) was obtained for comparisons of cohort 1 versus cohort 3 (low dose M51R vs. M51R-F), cohort 1 versus cohort 2 (low dose M51R vs. high dose M51R), and cohort 3 versus cohort 4 (low dose M51R-F vs. high dose M51R-F), but not for cohort 2 versus cohort 4 (high dose M51R vs. high dose M51R-F). The data shown represent 1 of 2 analyses with similar results performed on plasma from each animal. Figure 1. PMID: 29562688.



SDS-PAGE

SDS PAGE of Monkey IgG Whole Molecule. Lane 1: Non-Reduced Monkey IgG Whole Molecule. Lane 2: 5 µL Opal Prestained Marker (MB-210-0500). Lane 3: Reduced Monkey IgG Whole Molecule. Load: 1 µg per lane. Predicted/Observed size: Non-Reduced at 160 kDa, Observed at greater than 180; Reduced at 55, 25 kDa. Non-reduced sample migrates higher due to large molecular weight.

References

- Wu HL et al. IgM-and IgG-cleaving enzyme facilitates AAV gene transfer in AAV-seropositive macaques. *Front Immunol.* (2026)
- Smith TJ. et al. Engineered IgM and IgG cleaving enzymes for mitigating antibody neutralization and complement activation in AAV gene transfer. *Mol Ther.* (2024)
- Smith JC et al. Induction of Tier 2 HIV-Neutralizing IgA Antibodies in Rhesus Macaques Vaccinated with BG505.664 SOSIP. *Vaccines (Basel).* (2024)
- Westcott MM et al. Immunogenicity in African green monkeys of m protein mutant vesicular stomatitis virus vectors and contribution of vector-encoded flagellin. *Vaccines (Basel).* (2018)

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