

Datasheet for 012-0102-0005**Rat IgG****Overview**

Description:	Rat IgG Whole Molecule - 012-0102-0005
Item No.:	012-0102-0005
Size:	5 mg
Applications:	SDS-PAGE, WB, ELISA, FC, Other
Origin:	Rat

Product Details

Background:	Rat IgG purified protein (Immunoglobulin G) are antibody molecules. Rat IgG is composed of four peptide chains — two heavy chains (gamma) and two light chains. Rat IgG has two antigen binding sites. Other Immunoglobulins may be described in terms of polymers with the IgG structure considered the monomer. Rat IgG typically constitutes 75% of serum immunoglobulins. Rat IgG molecules are synthesized and secreted by plasma B cells.
Synonyms:	Rat Immunoglobulin G, Rat IgG whole molecule, Rat IgG purified protein
Species of Origin:	Rat
Format:	IgG
Type:	Native Protein

Target Details

Purity/Specificity:	Rat IgG 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. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rat IgG and anti-Rat Serum.
Relevant Links:	012-0102 SDS

Application Details

Tested Applications:	SDS-PAGE, WB
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Suggested Applications:	ELISA, FC, Other (Based on references)
Application Note:	Rat IgG whole molecule has been tested by SDS-Page and Western Blot and is suitable for use as antigen or ligand in immunochemical reactions, as a control or standard in assays, for conjugation and most other immunological methods requiring highly purified immunoglobulins.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
FC:	User Optimized
WB:	User Optimized

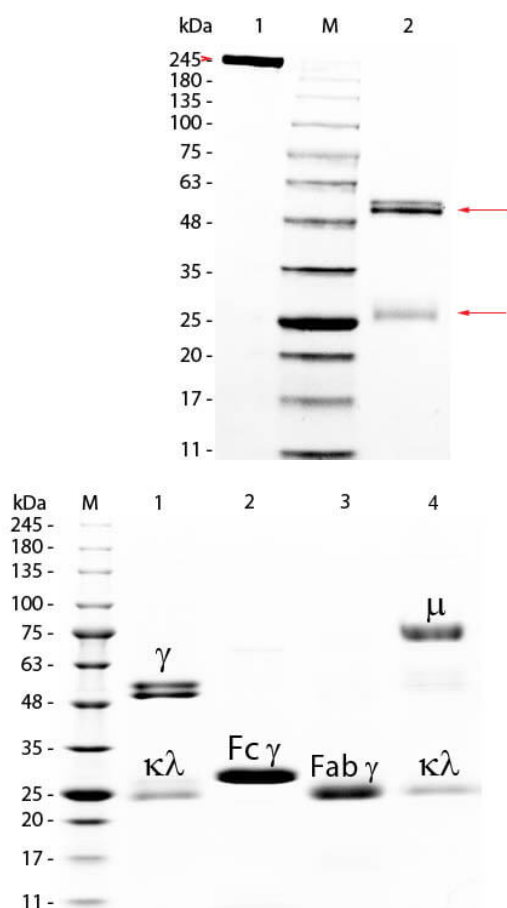
Formulation

Physical State:	Lyophilized
Concentration:	10.0 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:	500 µL
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. 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



SDS-PAGE

SDS PAGE of Rat IgG Whole Molecule. Lane 1: Non-Reduced Rat IgG Whole Molecule. Lane 2: 5 μ L Opal Prestained Marker (p/n MB-210-0500). Lane 3: Reduced Rat IgG Whole Molecule. Load: 1 μ g per lane. Predicted/Observed size: Non-Reduced at 160kDa/Observed at 245 kDa; Reduced at 55, 25 kDa. Non-reduced IgG migrates slightly higher.

SDS-PAGE

SDS-PAGE of Rat IgG F(c) Fragment Rhodamine Conjugated (p/n 012-0003). Lane M: 3 μ L Opal Prestained Marker (p/n MB-210-0500). Lane 1: Reduced Rat IgG Whole Molecule (p/n 012-0102). Lane 2: Reduced Rat IgG F(c) Fragment Rhodamine Conjugated (p/n 012-0003). Lane 3: Reduced Rat IgG Fab Fragment (p/n 012-0105). Lane 4: Reduced Rat IgM Whole Molecule (p/n 012-0107). Load: 1 μ g of IgG, F(c), Fab; 1.5 μ g of IgM. Predicted/Observed size: IgG at 55 and 25 kDa; F(c) at 25 kDa; Fab at 25 kDa; IgM at 78 and 25 kDa. Observed F(c) Fragment migrates slightly higher.

References

- Sundararaj KP. et al. "Neuraminidase activity mediates IL-6 production through TLR4 and p38/ERK MAPK signaling in MRL/lpr mesangial cells" *bioRxiv* (2020)
- Matsumura T et al. Sequential Sensing by TLR2 and Mincle Directs Immature Myeloid Cells to Protect against Invasive Group A Streptococcal Infection in Mice. *Cell Rep* (2019)
- Zhang Z et al. Elav-mediated exon skipping and alternative polyadenylation of the Dscam1 gene are required for axon outgrowth. *Cell Rep* (2019)
- Jean M Daley et al. Modulation of macrophage phenotype by soluble product(s) released from neutrophils. *J Immunol.* (2005)
- Blazar BR et al. Ligation of OX40 (CD134) regulates graft-versus-host disease (GVHD) and graft rejection in allogeneic bone marrow transplant recipients. *Blood.* (2003)

Disclaimer

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