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Datasheet for 003-0102

Chicken IgG

Overview

Description:	Chicken IgG Whole Molecule (BULK ORDER) - 003-0102
Item No.:	003-0102
Size:	10 mg
Applications:	SDS-PAGE, Cellular Assay, ELISA, Functional Assay
Origin:	Chicken

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-affinity 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:	Chicken immunoglobulin G, chicken IgG, Chicken IgY
Species of Origin:	Chicken
Format:	IgG
Type:	Native Protein

Target Details

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

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay, ELISA, Functional Assay (Based on references)
Application Note:	Chicken IgG whole molecule has been tested in SDS-Page and can be utilized as a control or standard reagent in 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

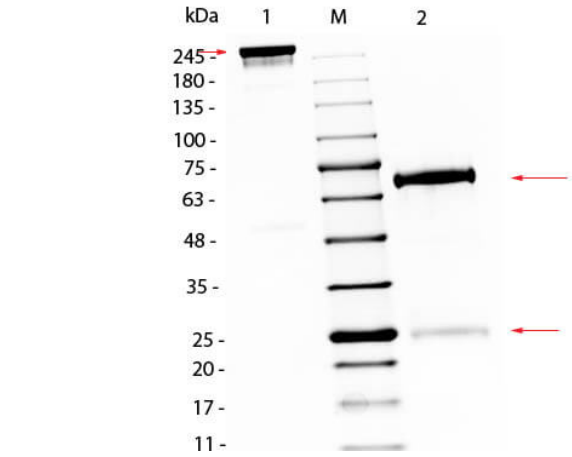
Formulation

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

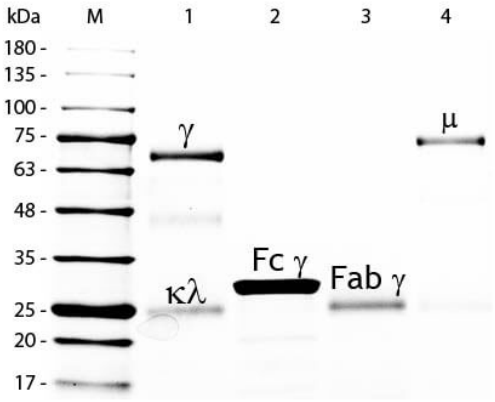
Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Restore with 1.0 mL of deionized water (or equivalent). 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 Chicken IgG/IgY Whole Molecule. Lane 1: Non-Reduced Chicken IgG Whole Molecule. Lane 2: 5 µL Opal Prestained Marker (p/n MB-210-0500). Lane 3: Reduced Chicken IgG Whole Molecule. Load: 1 µg per lane. Predicted/Observed size: Non-Reduced at 160kDa/Observed at 245 kDa; Reduced at 72, 25 kDa. Non-reduced IgG migrates slightly higher.



SDS-PAGE
SDS-PAGE of Chicken IgG/IgY Whole Molecule Rhodamine Conjugated (p/n 003-0002). Lane M: 5 µL Opal Prestained Marker (p/n MB-210-0500). Lane 1: Reduced Chicken IgG Whole Molecule Rhodamine Conjugated (p/n 003-0002). Lane 2: Reduced Chicken IgG F(c) Fragment (p/n 003-0103). Lane 3: Reduced Chicken IgG Fab Fragment (p/n 003-0105). Lane 4: Reduced Chicken IgM Whole Molecule (p/n 003-0107). Load: 1 µg per lane. Predicted/Observed size: IgG at 72 and 25 kDa; F(c) at 25 kDa; Fab at 25 kDa; IgM at 75 kDa. Observed F(c) Fragment migrates slightly higher. Other bands: Chicken IgG heavy chain alternative splicing variant at approximately 40 kDa in Lane 1.

References

- Okamoto M et al. Intracellular interaction between FcRY receptor and IgY in ovarian vascular endothelial cells during avian maternal IgY transfer. *Poult Sci.* (2025)
- Williams III, L.H. et al. Retention of immunolabels by Diorhabda carinulata, a biological control agent of saltcedar. *Entomologia Experimentalis et Applicata* (2011)
- Moore RW et al. Effect of bursal anti-steroidogenic peptide and immunoglobulin G on neonatal chicken B-lymphocyte proliferation. *Comp Biochem Physiol C Toxicol Pharmacol.* (2003)

Disclaimer

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