Datasheet for 010-0103

Mouse IgG Fc

Overview

Description:	Mouse IgG Fc Fragment - 010-0103
Item No.:	010-0103
Size:	1 mg
Applications:	SDS-PAGE, IF, Microarray, Multiplex
Origin:	Mouse

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. This product possesses the F(c) region, recognized by high-affinity Fc receptor proteins.
Synonyms:	MOUSE IgG F(c) fragment, Mouse Fc, Immunoglobulin Fc
Species of Origin:	Mouse
Format:	IgG Fc
Type:	Native Protein

Target Details

Purity/Specificity:	MOUSE IgG F(c) fragment was prepared from normal serum by a multi-step process which includes delipidation, salt fractionation, ion exchange chromatography and papain digestion followed by chromatographic separation and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Mouse Serum, anti-Mouse IgG and anti-Mouse IgG F(c). No reaction was observed against anti-Mouse IgG F (ab')2 or anti-Papain.

Application Details

Tested Applications:	SDS-PAGE

Suggested Applications:	IF, Microarray, Multiplex (Based on references)
Application Note:	Mouse IgG F(c) Fragment has been tested by 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

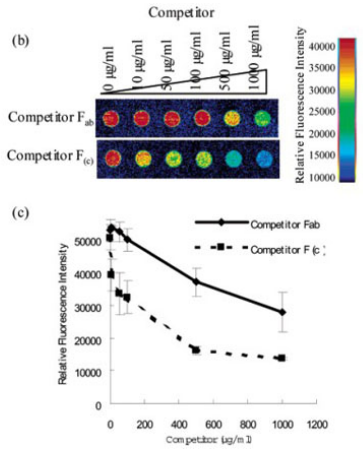
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.027 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

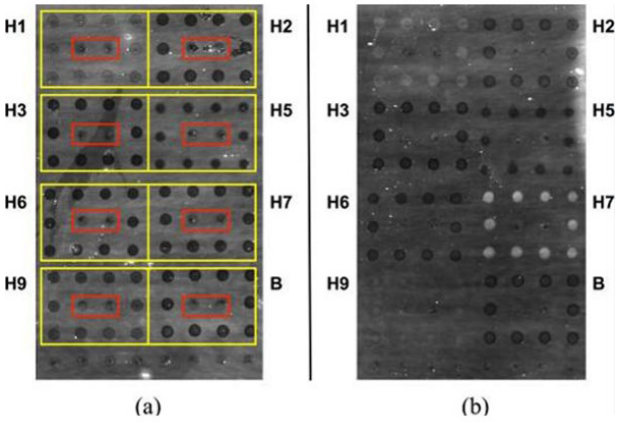
Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. 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. Mouse IgG Fc fragment 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.

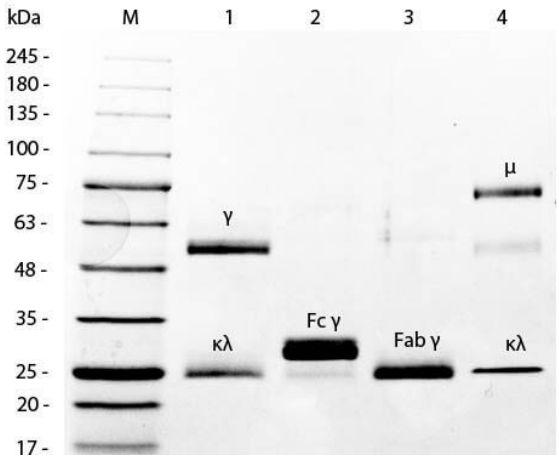
Images



Dot Blot
Ability of ProteoChip to bind the antibody F(c) region. (b) Scanning images of protein microarray: competition between FITC-labeled F(c) [p/n 010-0203] and unlabeled Fab fragments [p/n 010-0105] (upper picture), and FITC-labeled F(c) [p/n 010-0203] and unlabeled F(c) fragments [010-0103] (lower picture). (c) Scanning images were analyzed using QuantumArray software, and fluorescence intensities of each spot were plotted versus competitor concentration. Competition between FITC-labeled F(c) and unlabeled Fab fragment, and FITC-labeled F(c) and unlabeled F(c) fragments, are shown by the solid line and broken line, respectively. Figure 2. PMID: 15538771.



Dot Blot
Strong responses to polyclonal anti-HA antiserum are readily observable on an AIR hemagglutinin microarray.(a) 1% BSA control (p/n BSA-10). (b) Anti-H7 polyclonal antiserum (A/Netherlands/219/2003, H7N7), 1:80 dilution (1.3%) in 1% BSA. Spots showing substantially increased brightness indicate binding to immobilized H7. In both cases, antigens were arrayed in square patterns as indicated by the yellow boxes in (a); a mouse IgG Fc domain (p/n 010-0103) was included as negative control (red boxes). Slight differences in spot intensity in the control (a) are due to differences in deposition efficiency for different antigens or controls. Specific antigens used in these experiments are indicated in Table 2. Goat anti-fluorescein, (p/n 600-101-096) used as an internal negative control.
Fig 1. PMID: 26241048.



SDS-PAGE
SDS-PAGE of Mouse IgG Whole Molecule Rhodamine Conjugated (p/n 010-0002). MW: 5 µL Opal Prestained Marker (p/n MB-210-0500). Lane 1: Reduced Mouse IgG Whole Molecule Rhodamine Conjugated (p/n 010-0002). Lane 2: Reduced Mouse F(c) Fragment (p/n 010-0103). Lane 3: Reduced Mouse F(ab) Fragment (p/n 010-0105). Lane 4: Mouse IgM Kappa Myeloma Protein (p/n 010-001-033). Load: 1 µg per lane. Predicted/Observed size: IgG at 50 and 25 kDa; F(c) at 25 kDa; F(ab) at 25 kDa; IgM K at 70 and 23 kDa. Observed F(c) Fragment migrates slightly higher.

References

- Bucukovski, J et al. A Multiplex Label-Free Approach to Avian Influenza Surveillance and Serology. *PloS One* (2015)
- Sasakura Y et al. Protein microarray system for detecting protein-protein interactions using an anti-His-tag antibody and fluorescence scanning: effects of the heme redox state on protein-protein interactions of heme-regulated phosphodiesterase from Escherichia coli. *Anal Chem.* (2004)

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.