

Datasheet for 012-0103**Rat IgG Fc****Overview**

Description:	Rat IgG Fc Fragment - 012-0103
Item No.:	012-0103
Size:	1 mg
Applications:	SDS-PAGE, FC
Origin:	Rat

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 complement cascade, and opsonization for phagocytosis. The F(c) fragment binds with very high affinity to the Fc receptor proteins on phagocytic leukocytes. When digested from the whole antibody molecule, the F(c) fragment no longer possesses the epitope recognition site.
Synonyms:	Rat Immunoglobulin G F(c) fragment, IgG Fc
Species of Origin:	Rat
Format:	IgG Fc
Type:	Native Protein

Target Details

Purity/Specificity:	Rat 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. Rat IgG F(c) fragment was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Rat Serum, anti-Rat IgG and anti-Rat IgG F(c). No reaction was observed against anti-Rat IgG F(ab') ₂ or anti-Papain.
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Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	FC (Based on references)
Application Note:	Rat IgG F(c) Fragment 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

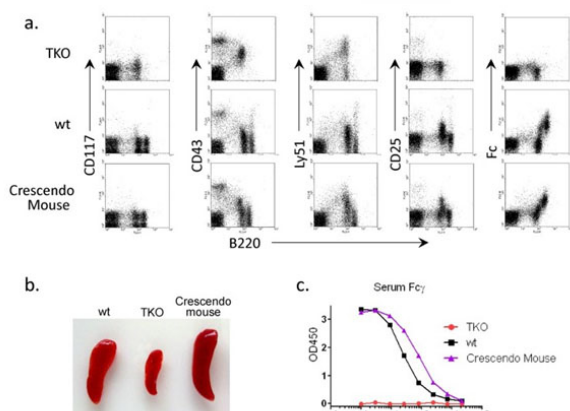
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 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

Shipping & Handling

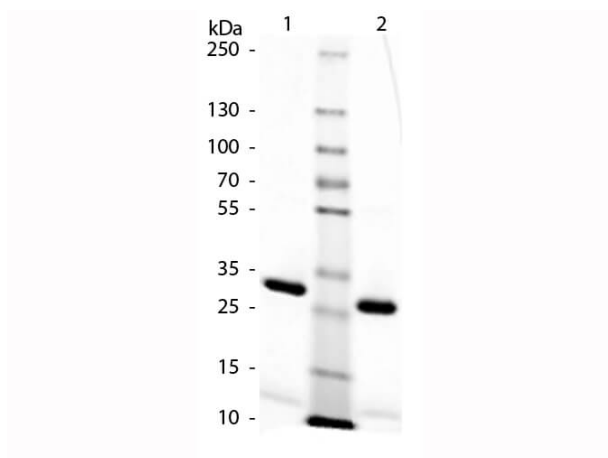
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. Stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Flow Cytometry

B cell development was reconstituted in the Crescendo Mouse. (a) Flow cytometric analysis of bone marrow cells stained with anti-B220 antibody (horizontal axis) and antibodies to differentiation markers (vertical axis), CD117, CD43, Ly51, CD25, IgM-Fc (TKO & wt) or IgG-Fc (Crescendo Mouse); (b) photograph of spleens from wild type mouse, TKO mouse and Crescendo Mouse; (c) sandwich ELISA detecting serum Ig Fc γ chains in TKO (circles), wild type (squares) and the Crescendo Mouse (triangles). Rat Fc fragments (p/n 012-0103). Fig. 2. PMID: 31600579.



SDS-PAGE

SDS-Page of Rat IgG Fc(c). Lane 1: Rat Fc – Non-reduced. Lane 2: Rat Fc - Reduced. Load: 1.0 μ g per lane. Predicted/Observed size: 25 kDa, 25 kDa for Reduced Fc. Other band(s): None.

References

- Teng Y et al. Diverse human VH antibody fragments with bio-therapeutic properties from the Crescendo Mouse. *N Biotechnol.* (2020)

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.