

Datasheet for 011-0102-0010**Rabbit IgG****Overview**

Description:	Rabbit IgG Whole Molecule - 011-0102-0010
Item No.:	011-0102-0010
Size:	10 mg
Applications:	SDS-PAGE, FC, IF, IP, LFA
Origin:	Rabbit

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 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:	Rabbit immunoglobulin G
Species of Origin:	Rabbit
Format:	IgG
Type:	Native Protein

Target Details

Purity/Specificity:	Rabbit IgG whole molecular 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. Rabbit IgG whole molecular was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit IgG and anti-Rabbit Serum.
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Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	FC, IF, IP, LFA (Based on references)
Application Note:	Rabbit 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

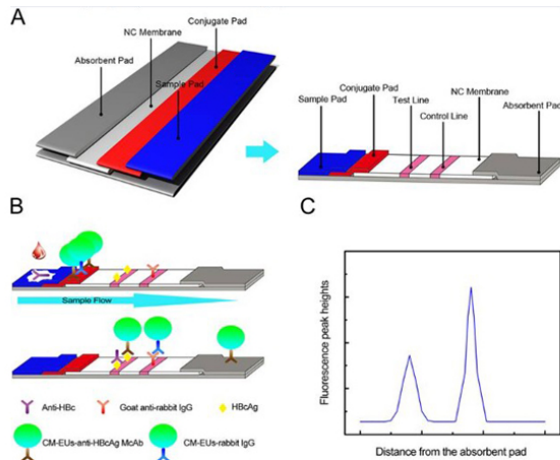
Formulation

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

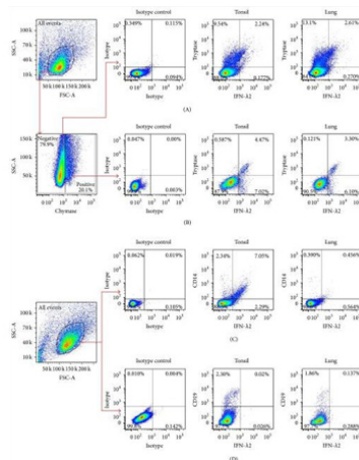
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Rabbit IgG whole molecule is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



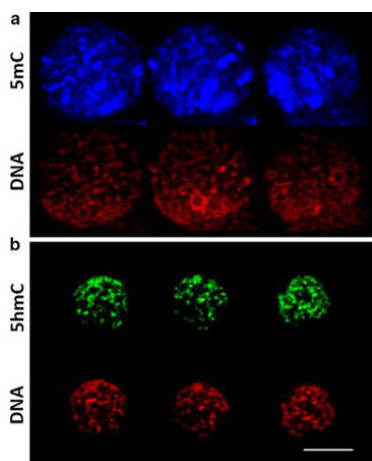
Lateral Flow

Schematic illustration of the CM-EUs-based lateral flow assay. (A) Components and assembly of CM-EUs-based lateral flow test strip. (B) The recombinant HbAg and the anti-RlgG were immobilized on the test line and the control line, [Goat Anti-Rabbit IgG Fc Antibody (p/n 611-1103) and Rabbit IgG Whole Molecule (p/n 011-0102)] respectively. Samples containing anti-HBc are added to the sample pads and migrate along the NC membrane by capillary action, and the anti-HBc competes with the anti-HBc in the sample for binding to the immobilized protein. (C) The fluorescence peak height is detected using a portable TRF strip reader. Fig 1. PMID: 29074971.



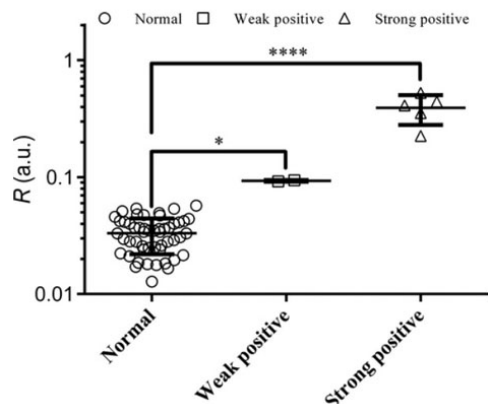
Flow Cytometry

Flow cytometry analysis of expression of IFN-λ2 in dispersed human MCT, MCTC, CD14+ (macrophages), and CD19+ (B cells) cells. Rabbit anti-human IFN-λ2 and FITC conjugated goat anti-rabbit IgG antibodies were employed to detect IFN-λ2 in cells from tonsil and lung, respectively. PE/Cy7-anti-human tryptase (AA5-PE/Cy7), anti-human chymase antibody CC4 (IgM subtype), PE conjugated rat anti-mouse IgM (CC1-PE), PE/Cy7-anti-human CD14 (CD14-PE/Cy7), and APC-anti-human CD19 (CD19-APC) antibodies were used to identify MCT (A), MCTC (B), CD14+ (C), and CD19+ cells (D), respectively. Rabbit IgG control (p/n 011-0102) Fig 4. PMID: 27057098.



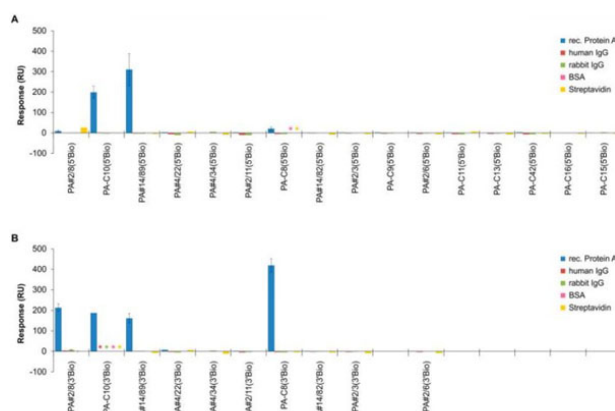
Immunofluorescence Microscopy

Distribution of 5-methylcytosine (5mC) and 5-hydroxymethylcytosine (5hmC) within the pronucleus. Single images were obtained at different positions of the same pronucleus from z-stacks to illustrate the distribution of 5mC and 5hmC. The pattern of distribution of 5mC and 5hmC differs largely, with 5hmC being distributed homogeneously, while 5mC was concentrated in specific DNA regions. 5mC and 5hmC were evaluated in different zygotes. Zygotes were incubated with the non-immune control antibody rabbit IgG (p/n 011-0102). Fig. 5. PMID: 28331549.



Lateral Flow

Lateral flow test results for 58 serum samples, including 51 normal and 7 positive samples. [Symbol legend: (*) $P < 0.05$, (***) $P < 0.0001$ (one-way analysis of variance and Fisher's least significant difference test).] Mouse anti-human IgG antibody and rabbit IgG [p/n 011-0102] were combined, the mixture was dispensed onto the conjugate pad and dried. Figure 4. PMID: 32323974.

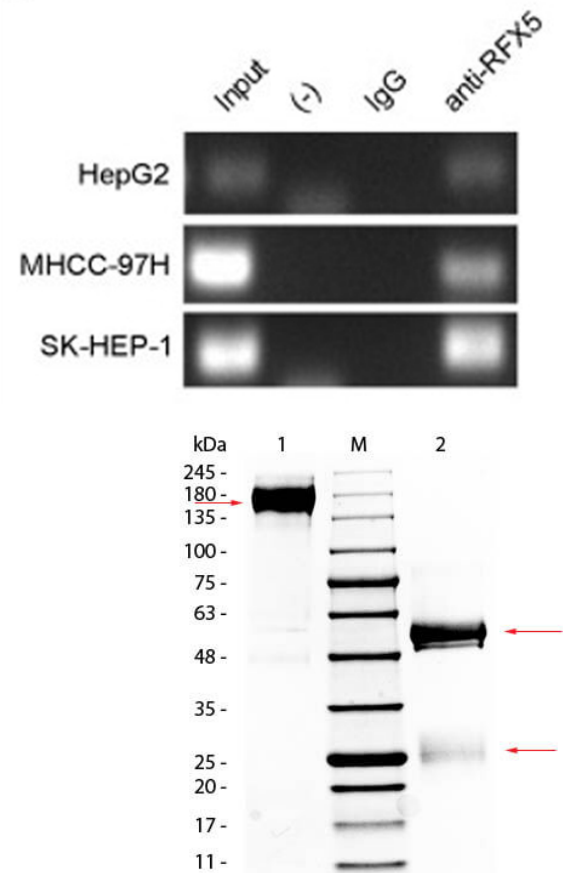


Surface Plasmon Resonance (SPR)

Representative sequences of the 15 identified groups from the NGS pool were screened for their individual binding abilities to Protein A. Comparative SPR-based interaction analyses were performed with the Biacore X100 instrument. Biotinylated aptamers were immobilized via the 5'-end (A) or 3'-end (B) on the streptavidin-modified sensor surface and 1000 nM Protein A was injected for binding. The sensor responses from the end of the binding phases (after 300 s) are shown. In addition, cross-specificities to other proteins were analyzed. Asterisks indicate if certain interactions have not been investigated. Rabbit IgG (p/n 011-0102). Figure 5. PMID: 29495282.

SDS-PAGE

SDS PAGE gel of commercially-purified rabbit Immunoglobulin G (rIgG) and of rIgG papain digestion products Fab and Fc. Lanes A, B and G contain gel markers. Lanes C–F contain products which have been reduced with b-mercaptoethanol. Lanes H–L contain non-reduced products. Each lane contains approximately 35 mg of the following products: Lanes C and H contain papain digested products; Lanes D, I and L contain Fc fragment obtained from protein A purification; Lanes E and J contain whole rIgG; Lanes F and K contain Fab fragment obtained from protein A purification; Whole rIgG (p/n 011-0102), rFc (p/n 011-0103), rFab (p/n 011-0105), rF(ab')₂ (p/n 011-0104). Fig. 3. PMID: 12643976.

C**Western Blot**

RFX5 binds to the promoter region and activates transcription of the KDM4A genes in HCC cells.

(C) Immunoprecipitated DNA fragments produced by anti-RFX5 were subjected to PCR assay with primers that can detect the RFX5 binding peak site in the KDM4A promoter region which was determined by ChIP-seq. Consistent with ChIP-seq data, KDM4A promoter region was detected by PCR in the elution of anti-RFX5 in SK-HEP-1, MHCC-97H, and HepG2 cells, but not in the elution of control IgG (normal rabbit IgG p/n 011-0102). Figure 2. PMID: 32883983.

SDS-PAGE

SDS-PAGE of Rabbit IgG Whole Molecule. Lane 1: Non-reduced Rabbit IgG Whole Molecule. Lane 2: 5μL OPAL Pre-stained Marker (MB-210-0500). Lane 3: Reduced Rabbit IgG Whole Molecule. Load: 1μg per lane. Predicted/Observed size: Non-reduced at 150-170 kDa, Reduced at 55, 25 kDa.

References

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