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Datasheet for 209-4202

Human IgG (H&L) Antibody Fluorescein Conjugated

Overview

Description:	Rabbit Anti-Human IgG (H&L) Antibody Fluorescein Conjugated - 209-4202
Item No.:	209-4202
Size:	20 mg
Applications:	ELISA, IP
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Anti-Human IgG (H&L) Fluorescein generated in rabbit detects human Immunoglobulin G (IgG), both heavy and light chains of the antibody molecule are present. It is a protein complex composed of four peptide chains — two identical heavy chains and two identical light chains arranged in a Y-shape typical of antibody monomers. Each IgG has two antigen binding sites. Representing approximately 75% of serum immunoglobulins in humans, IgG is the most abundant antibody isotype found in the circulation. IgG molecules are synthesized and secreted by plasma B cells. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition.
Synonyms:	rabbit anti-Human IgG Fluorescein Conjugated Antibody, rabbit anti-Human IgG FITC Conjugated Antibody, rabbit anti-Human IgG Antibody Fluorescein Conjugation
Host Species:	Rabbit
Specificity:	IgG (H&L)
Conjugate:	Fluorescein (FITC)
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Human

Immunogen:	Human IgG whole molecule
Purity/Specificity:	This product is an IgG fraction antibody purified from monospecific antiserum 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-fluorescein, anti-Rabbit Serum, Human IgG and Human Serum.

Application Details

Suggested Applications:	ELISA, IP (Based on references)
Application Note:	Anti-Human IgG (H&L) Fluorescein is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1:500 - 1:2,500
FLISA:	1:10,000 - 1:50,000
IF:	1:1,000 - 1:5,000

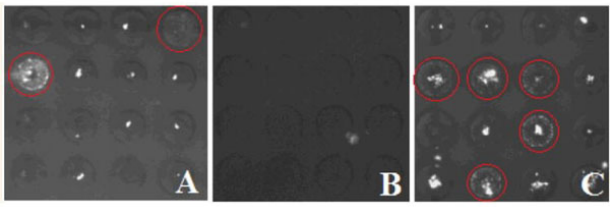
Formulation

Physical State:	Lyophilized
Concentration:	10 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

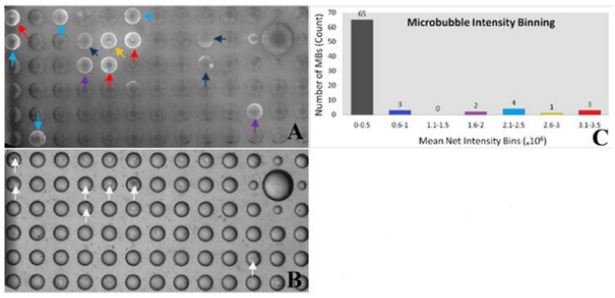
Shipping & Handling

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. 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.

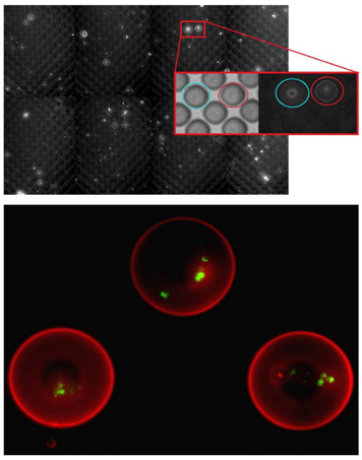
Images



Immunoprecipitation
IgG Secretion. A) ARH-77, B) CCL-119, C) SA13. Both ARH-77 and SA13 cell lines display high fluorescence readouts while CCL-119 shows little fluorescence. Red circles correspond to MBs that contained cells and displayed high levels of immunoprecipitation. Light fluorescent spot in (B) is attributed to a reflection off an out of focus bubble on MB surface. By day 1 the fluorescent images showed that some wells took on a speckled appearance that continued to intensify over time (Fig. 1). By day 4 distinct differences could be discerned between the three cell lines. The fluorescence speckle pattern signifies detection of immunoprecipitation (IP) between secreted IgG and FITC labeled α-IgG added to the cell culture media. Figure 1. PMID: 25079889.



ELISA
Ring development signifying tetanus toxoid specific IgG secretion from MBs of interest. A) Fluorescent image, B) Corresponding bright-field image white arrows represent wells containing >8 cells, C) Binned fluorescence intensity of MB's in field of view, bin colors correspond to arrow colors in (A). Fig 3. PMID: 25079889



ELISA

Top (Fig 6.): Stitched scan of MB array containing approximately 900 MBs. Cells were seeded and the MB array was imaged following 2 days of incubation. MB with fluorescent rings around them are considered positive wells.

Bottom (Fig 7.): Representative image from area on a MB array seeded with primary B cells showing MB's positive for live cells (Green) which are additionally secreting IgG (Red). PMID: 25079889

References

- Bobo, B et al. Microbubble array diffusion assay for the detection of cell secreted factors. *Lab on a Chip* (2014)

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