

Datasheet for 209-1304

Human IgG F(ab')₂ Antibody Peroxidase Conjugated**Overview**

Description:	Goat Anti-Human IgG F(ab') ₂ Antibody Peroxidase Conjugated - 209-1304
Item No.:	209-1304
Size:	20 mg
Applications:	ELISA
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	Anti-Human IgG F(ab') ₂ Peroxidase Antibody generated in goat recognizes the dimeric Fab portion of the human IgG molecule. Human IgG F(ab') ₂ is a proteolytic fragment of immunoglobulin G (IgG) obtained by limited digestion with the enzyme pepsin under controlled conditions of temperature, time and pH. F(ab') ₂ molecules lack the Fc portion of IgG and therefore receptors that bind human IgG F(c) will not bind human IgG F(ab') ₂ molecules. 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:	Human IgG F(ab') ₂ Antibody, Gt-a-Human F(ab') ₂ Peroxidase conjugated, Human F(ab') ₂ Peroxidase Antibody in goat, Goat F(ab') ₂ peroxidase conjugated Secondary Antibody.
Host Species:	Goat
Specificity:	IgG F(ab') ₂
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Human
Immunogen Type:	Native Protein

Immunogen:	Anti-Human IgG F(ab') ₂ was produced by repeated immunization with human IgG F(ab') ₂ fragment in goat.
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-Peroxidase, anti-Goat Serum, Human IgG, Human IgG F(ab') ₂ and Human Serum. No reaction was observed against Human IgG F(c).

Application Details

Suggested Applications:	ELISA (Based on references)
Application Note:	This product has been assayed against 1.0 ug of Human IgG in a standard capture ELISA using ABTS (2,2'-azino-bis-[3-ethylbenzthiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:20,000 to 1:100,000 of the reconstitution concentration is suggested for this product.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	1:500 - 1:2,500
WB:	1:1,000 - 1:10,000

Formulation

Physical State:	Lyophilized
Concentration:	10.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

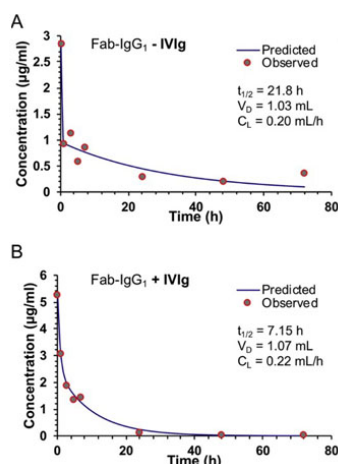
Shipping & Handling

Shipping Condition:	Ambient
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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

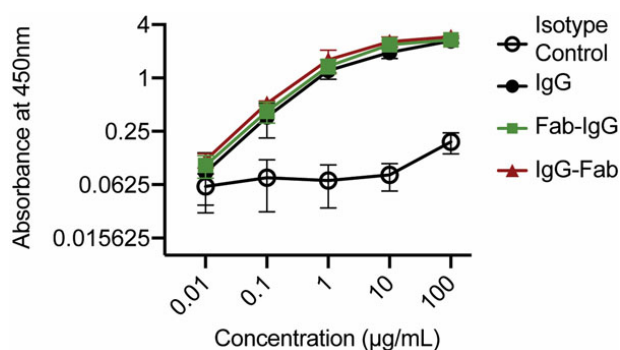


ELISA

ELISA results using Goat Anti-Human IgG F(ab')₂ Antibody Peroxidase Conjugated.

High dose IVIg reduces the circulation kinetics of bispecific Ab by 3-fold.

A) The serum circulation profile of bispecific Fab-IgG1 (30 µg) in athymic nude mice (n = 8 total mice, 4 mice per time point). B) The serum circulation profile of bispecific Fab-IgG1 (30 µg) in the presence of high dose IVIg (30 mg) in athymic nude mice (n = 8 total mice, 4 mice per time point). The solid line for both figures represents the predicted fit for a two-compartment model used to calculate the elimination half-life ($t_{1/2}$), volume of distribution (VD), and clearance (CL). Figure 3. PMID: 31394261.



ELISA

Whole sperm ELISA to assess the binding potency of the indicated Abs to human sperm. The serial dilution of mAbs in 1% milk was added to the microwells and incubated overnight at 4°C. Motavizumab (anti-RSV IgG1) was used as the isotype control. After primary incubation, the plates were washed three times using 1X PBS. Then, the secondary Ab, goat anti-human IgG F(ab')₂ Ab HRP-conjugated (1:10,000 dilutions in 1% milk, p/n 209-1304) was added to the wells and incubated for 1 hr at room temperature. Data represent 3 independent experiments with 3 unique semen donors. Each experiment was performed in triplicates and averaged. Lines indicate arithmetic mean values and standard deviation. Figure S4. PMID: 32937206.

References

- Newell, KL et al. Switched and unswitched memory B cells detected during SARS-CoV-2 convalescence correlate with limited symptom duration. *PLoS One* (2021)
- Newell KL et al. Switched and unswitched memory B cells detected during SARS-CoV-2 convalescence correlate with limited symptom duration. *medRxiv*. (2020)
- Shrestha B et al. Engineering tetravalent IgGs with enhanced agglutination potencies for trapping vigorously motile sperm in mucin matrix. *Acta Biomater.* (2020)
- Parker, CL et al. Pretargeted delivery of PEG-coated drug carriers to breast tumors using multivalent, bispecific antibody against polyethylene glycol and HER2. *Nanomedicine : Nanotechnology, Biology, and Medicine* (2019)

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.