

## Datasheet for 602-1302

**Cat IgG (H&L) Antibody Peroxidase Conjugated****Overview**

|                      |                                                                   |
|----------------------|-------------------------------------------------------------------|
| <b>Description:</b>  | Goat Anti-Cat IgG (H&L) Antibody Peroxidase Conjugated - 602-1302 |
| <b>Item No.:</b>     | 602-1302                                                          |
| <b>Size:</b>         | 2 mg                                                              |
| <b>Applications:</b> | ELISA                                                             |
| <b>Reactivity:</b>   | Cat                                                               |
| <b>Host Species:</b> | Goat                                                              |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | 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. 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. Anti-Cat IgG (H&L) antibody is ideal for investigators in Immunology, Cancer, and Microbiology research. |
| <b>Synonyms:</b>     | Goat anti-Cat IgG peroxidase Conjugated Antibody, Goat anti-Cat IgG HRP Conjugated Antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Host Species:</b> | Goat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Specificity:</b>  | IgG (H&L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Conjugate:</b>    | Peroxidase (HRP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Target Details**

|                    |                        |
|--------------------|------------------------|
| <b>Reactivity:</b> | Cat                    |
| <b>Immunogen:</b>  | Cat IgG whole molecule |

|                            |                                                                                                                                                                                                                                                              |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity/Specificity:</b> | This product was prepared from monospecific antiserum by immunoaffinity chromatography using Cat IgG coupled to agarose. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum, Cat IgG and Cat Serum. |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Application Details

|                                |                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suggested Applications:</b> | ELISA (Based on references)                                                                                                                                                                                                                                                                                                              |
| <b>Application Note:</b>       | This product has been assayed against 1.0 ug of Cat IgG in a standard capture ELISA using ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-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. |
| <b>Assay Dilutions:</b>        | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                          |
| <b>ELISA:</b>                  | 1:10,000 - 1:50,000                                                                                                                                                                                                                                                                                                                      |
| <b>IHC:</b>                    | 1:500 - 1:2,500                                                                                                                                                                                                                                                                                                                          |
| <b>WB:</b>                     | 1:1,000 - 1:10,000                                                                                                                                                                                                                                                                                                                       |

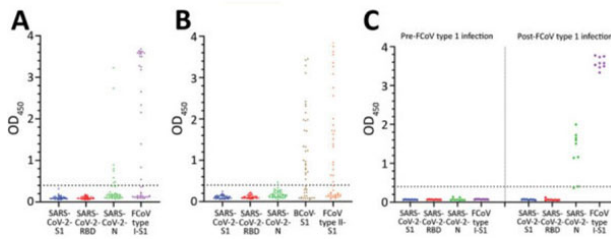
## Formulation

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                            |
| <b>Concentration:</b>         | 2.0 mg/mL by UV absorbance at 280 nm                                   |
| <b>Buffer:</b>                | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2             |
| <b>Preservative:</b>          | 0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!               |
| <b>Stabilizer:</b>            | 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free |
| <b>Reconstitution Volume:</b> | 1.0 mL                                                                 |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent)                           |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Ambient                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage Condition:</b>  | 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. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                           |

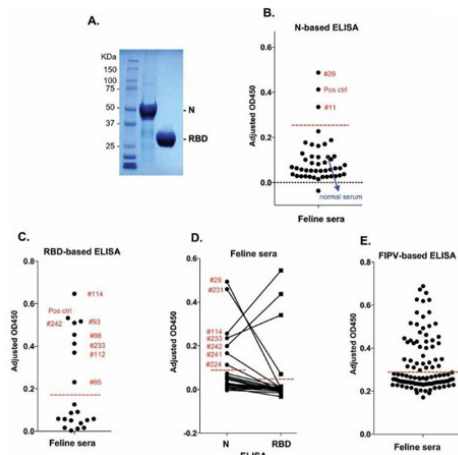
## Images



### ELISA

ELISA results using Goat Anti-Cat IgG HRP.

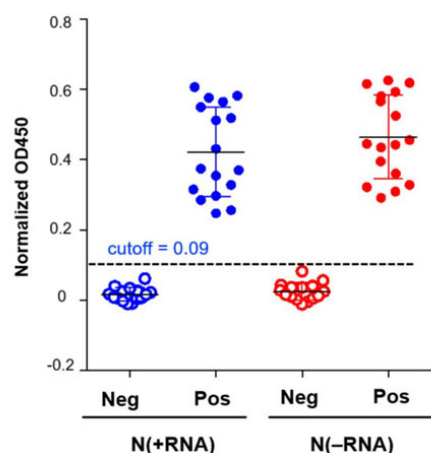
ELISA reactivities against different antigens of pre-coronavirus disease (COVID-19) cat and dog serum samples and paired samples of FCoV type I infection, the Netherlands. A) Reactivities of pre-COVID-19 cat serum samples against SARS-CoV-2 S1, RBD, N, and FCoV type I S1. B) Reactivities of pre-COVID-19 dog serum samples against SARS-CoV-2 S1, RBD, N, BCoV S1, and FCoV type II S1. C) Reactivities of paired SPF cat serum samples (left panel) and FCoV type I-specific serum samples (right panel) to SARS-CoV-2 S1, subunit; RBD, N, and FCoV S1 protein levels were determined by ELISA. Dotted lines indicate positive cutoff levels. BCoV, bovine coronavirus; FCoV, feline coronavirus; N, nucleocapsid; OD, optical density; RBD, receptor-binding domain; S1, spike protein subunit 1; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; SPF, specific pathogen free. Figure 1. PMID: 33900184.



### ELISA

ELISA results using Goat Anti-Cat IgG HRP.

Serological tests of pet cat sera by ELISA. (a) Purified recombinant SARS-CoV-2 N and RBD proteins shown in SDS-PAGE gel after Coomassie blue staining. (b) A representative SARS-CoV-2 N IgG ELISA with pet cat sera. Normal cat serum purchased from a commercial source, the positive control (SARS-CoV N-specific mAb 1C7C7), and two seropositive samples (#29 and #11) are shown. (c) Pet cat sera tested by RBD IgG ELISA. The positive control (mAb 1C7C7), and seropositive samples are shown. (d) A batch of pet cat sera were tested with both N and RBD IgG ELISA. None of the RBD-positive sera are N-negative. The ID# of N seropositive samples are shown. (e) Evaluation of pet cat sera with IgG ELISA against feline infectious peritonitis virus (FIPV) antigens. Each serum was tested pairwise in uncoated and coated wells in technical duplicates. The adjusted OD450 value was calculated by subtracting OD450 value of uncoated well from that of the coated well. The cutoff OD450 value was calculated as described in Materials and Methods and shown as a red dash line. Figure 1. PMID: 34125647.



### ELISA

ELISA results using Goat Anti-Cat IgG HRP

Evaluation of N(+RNA) and N(-RNA) proteins in the N-based ELISA using feline clinical serum samples. Seventeen seropositive (pos) and 14 seronegative (neg) cat serum samples were analyzed by N-based ELISA with either N(+RNA) and N(-RNA). The cutoff OD450 value is shown as a dashed line. Figure 4. PMID: 34451501.

## References

- Zhao SZ et al. Serologic screening of severe acute respiratory syndrome coronavirus 2 infection in cats and dogs during first coronavirus disease wave, the Netherlands. *Emerg Infect Dis.* (2021)
- Di, D et al. Recombinant SARS-CoV-2 Nucleocapsid Protein: Expression, Purification, and Its Biochemical Characterization and Utility in Serological Assay Development to Assess Immunological Responses to SARS-CoV-2 Infection. *Pathogens (Basel, Switzerland)* (2021)
- Dileepan, M et al. Seroprevalence of SARS-CoV-2 (COVID-19) exposure in pet cats and dogs in Minnesota, USA. *Virulence* (2021)

## 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.