

## Datasheet for 612-1302

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

<b>Description:</b>	Goat Anti-Rat IgG (H&L) Antibody Peroxidase Conjugated - 612-1302
<b>Item No.:</b>	612-1302
<b>Size:</b>	2 mg
<b>Applications:</b>	ELISA, WB
<b>Reactivity:</b>	Rat
<b>Host Species:</b>	Goat

**Product Details**

**Background:** Anti-Rat IgG whole molecule antibody generated in goat detects specifically Rat IgG whole molecule. 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 compliment 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 the Heavy and Light chains of the antibody molecule are present. 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. Goat Anti-Rat IgG peroxidase Conjugated Antibody is ideal for investigators who routinely perform ELISA, Sandwich ELISA, titration assays, western-blot, immunoprecipitation and more generally immunoassays.

<b>Synonyms:</b>	Goat Anti-Rat IgG peroxidase Conjugated Antibody, Goat Anti-Rat IgG Antibody HRP Conjugation
<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>	Rat
<b>Immunogen Type:</b>	Native Protein
<b>Immunogen:</b>	Anti-Rat IgG whole molecule was produced by repeated immunization with Rat IgG whole molecule in goat.
<b>Purity/Specificity:</b>	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Rat IgG coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum, Rat IgG and Rat Serum.

## Application Details

<b>Tested Applications:</b>	ELISA
<b>Suggested Applications:</b>	WB (Based on references)
<b>Application Note:</b>	Anti-Rat IgG HRP Conjugate has been tested by ELISA and is suitable for immunoblotting (western or dot blot), ELISA, immunoperoxidase electron microscopy and immunohistochemistry as well as other peroxidase-antibody based enzymatic assays requiring lot-to-lot consistency.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	1:50,000 - 1:100,000
<b>IHC:</b>	1:500 - 1:1,500
<b>WB:</b>	1:2,000 - 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)

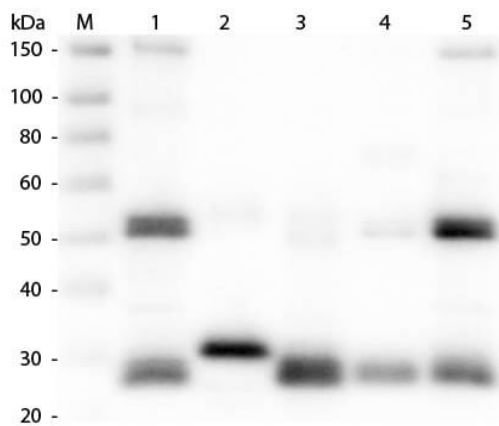
## Shipping & Handling

**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



### Western Blot

Western Blot of Anti-Rat IgG (H&L) (GOAT) Antibody (p/n 612-1102). Lane M: 3 µl Molecular Ladder. Lane 1: Rat IgG whole molecule (p/n 012-0102). Lane 2: Rat IgG F(c) Fragment (p/n 012-0103). Lane 3: Rat IgG Fab Fragment (p/n 012-0105). Lane 4: Rat IgM Whole Molecule (p/n 012-0107). Lane 5: Rat Serum (p/n D310-05). All samples were reduced. Load: 50 ng per lane. Block: MB-070 for 30 min at RT. Primary Antibody: Anti-Rat IgG (H&L) (GOAT) Antibody (p/n 612-1102) 1:1,000 for 60 min at RT. Secondary Antibody: Anti-Goat IgG (DONKEY) Peroxidase Conjugated Antibody (p/n CUST10) 1:40,000 in MB-070 for 30 min at RT. Predicted/Observed Size: 25 and 55 kDa for Rat IgG and Serum, 25 kDa for F(c) and Fab, 78 and 25 kDa for IgM. Rat F (c) migrates slightly higher.

## References

- Shamseldin MM et al. Prime-Pull Immunization of Mice with a BcfA-Adjuvanted Vaccine Elicits Sustained Mucosal Immunity That Prevents SARS-CoV-2 Infection and Pathology. *J Immunol.* (2023)
- Emanuela Piermarini et al. Frataxin silencing alters microtubule stability in motor neurons: implications for Friedreich's ataxia. *Hum Mol Genet.* (2016)

## 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.