

## Datasheet for 610-4342

**Mouse IgG2b (Gamma 2b chain) Antibody Peroxidase Conjugated****Overview**

<b>Description:</b>	Rabbit Anti-Mouse IgG2b (Gamma 2b chain) Antibody Peroxidase Conjugated - 610-4342
<b>Item No.:</b>	610-4342
<b>Size:</b>	1 mg
<b>Applications:</b>	ELISA, WB
<b>Reactivity:</b>	Mouse
<b>Host Species:</b>	Rabbit

**Product Details**

<b>Background:</b>	Anti-Mouse IgG2b peroxidase conjugated antibody generated in rabbit detects specifically mouse IgG2b. This secondary peroxidase conjugated antibody anti-Mouse is ideal for investigators who routinely perform titration assays, western-blot, immunoprecipitation and more generally immunoassays.
<b>Synonyms:</b>	Rabbit Anti-Mouse IgG2b (gamma 2b chain) Antibody peroxidase Conjugated, Rabbit Anti-Mouse IgG2b Antibody HRP Conjugation
<b>Host Species:</b>	Rabbit
<b>Specificity:</b>	IgG2b
<b>Conjugate:</b>	Peroxidase (HRP)
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG

**Target Details**

<b>Reactivity:</b>	Mouse
<b>Immunogen Type:</b>	Native Protein
<b>Immunogen:</b>	Anti-Mouse IgG2b was produced by repeated immunization with mouse IgG2b heavy chain in rabbit.

**Purity/Specificity:** This product was prepared from monospecific antiserum by immunoaffinity chromatography using Mouse 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-Rabbit Serum, Mouse IgG and Mouse Serum. Specificity was confirmed by ELISA at less than 1% cross-reactivity against other mouse or human heavy or light chain isotypes.

## Application Details

<b>Tested Applications:</b>	ELISA
<b>Suggested Applications:</b>	WB (Based on references)
<b>Application Note:</b>	Anti-Mouse IgG2b peroxidase conjugated antibody 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>	1:65,000
<b>IHC:</b>	1:500 - 1:2,500
<b>WB:</b>	1:1,000 - 1:5,000

## Formulation

<b>Physical State:</b>	Lyophilized
<b>Concentration:</b>	1.0 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)

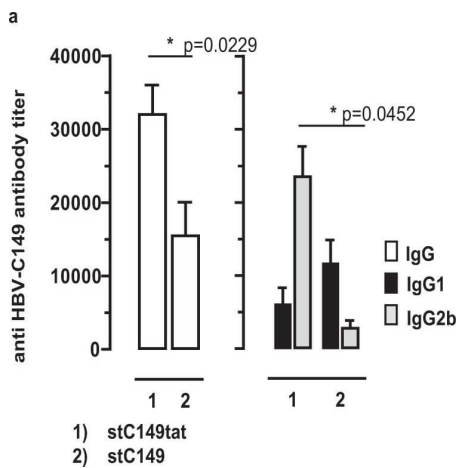
## Shipping & Handling

<b>Shipping Condition:</b>	Ambient
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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.

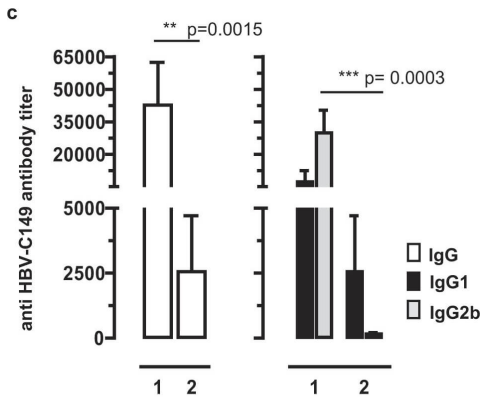
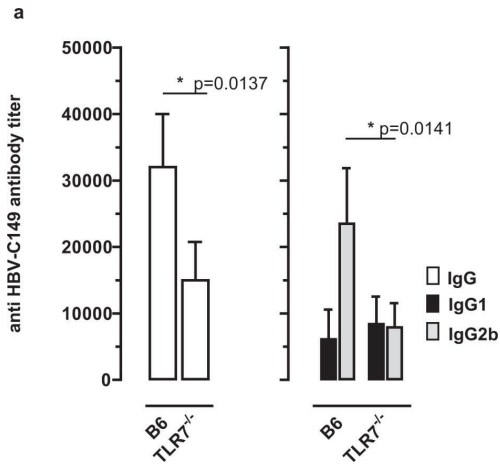
**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



### ELISA

Induction of HBV core-specific antibodies in mice. (a) B6 mice were immunized with recombinant HEK-293-derived stC149tat or stC149 (n = 4/5). Three weeks post injection serum samples were obtained by tail bleeding and HBV core-specific IgG, IgG1 and IgG2b serum antibody titers were determined by end-point dilution ELISA using bacterial rHBV-C149 particles as detection antigen. Mean specific antibody titers in sera  $\pm$ SD (a) and the calculated IgG1/IgG2a ratios  $\pm$ SD (b) of a representative experiment (out of two performed experiments) are shown. The statistical significance of differences in IgG, IgG1 and IgG2b antibody titers between stC149tat- and stC149 immune B6 mice were determined by the unpaired Student's t-test. (c) B6 mice were immunized with recombinant stC149tat or stC149 proteins. Ten days post immunization spleen cells were stimulated ex vivo for 2 days with the HBV-Core-specific I-Ab-binding C128-140 peptide. The specific IFN- $\gamma$  release into the cell culture supernatants was determined by ELISA. The statistical significance of differences in IFN- $\gamma$  levels between stC149- and stC149tat-immune mice (groups 2 and 3) were determined by the unpaired Student's t-test. (a–c) P values of <0.05 (\*) and <0.01 (\*\*) were considered statistically significant. Figure provided by CiteAb. Source: Sci Rep, PMID: 30279478.



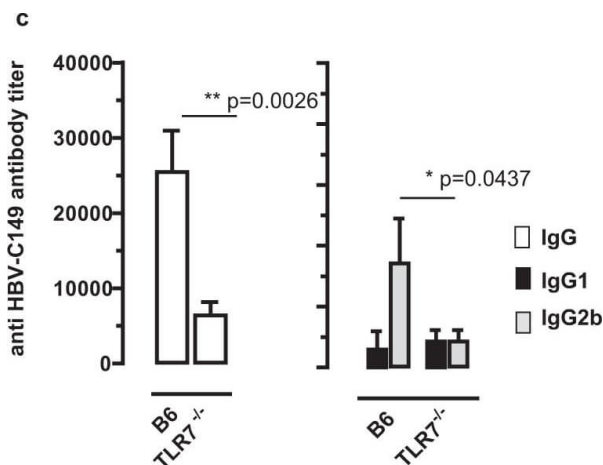
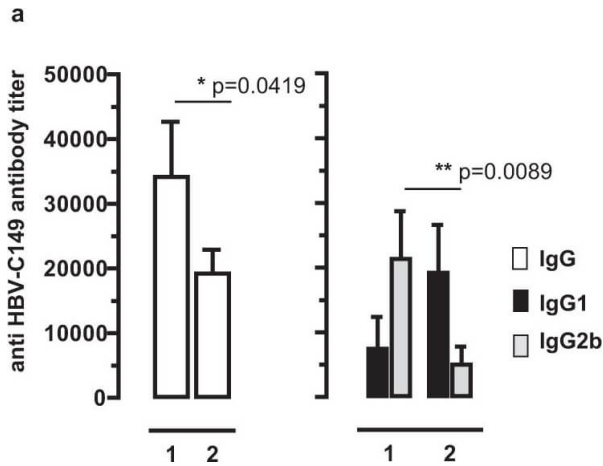
- 1) stCAAA
- 2) stCAAAY<sub>132A</sub>

#### ELISA

Induction of HBV core-specific antibodies in B6 and TLR7<sup>-/-</sup> mice. B6 and TLR7<sup>-/-</sup> (n = 4/4) were immunized with recombinant HEK-293-derived stC149tat particles. Serum samples were obtained and analysed as described in the M&M section. Mean specific antibody titers in sera  $\pm$ SD (a) and the calculated IgG1/IgG2a ratios  $\pm$ SD (b) of a representative experiment (out of two performed experiments) are shown. The statistical significance of differences in IgG and IgG2b antibody titers between stC149tat immune B6 and TLR7<sup>-/-</sup> mice was determined by the unpaired Student's t-test. P values of <0.05 (\*) and <0.001 (\*\*\*) were considered statistically significant. Figure provided by CiteAb. Source: Sci Rep, PMID: 30279478.

#### ELISA

Expression and characterization of a mutant HBV-stCAAA and HBV-stCAAAY132A antigen. (a) Samples of purified stCAAA and stCAAAY132A antigens were processed for SDS-PAGE and subsequent Coomassie Blue staining of the gel. The positions of the respective Core antigens and the C1QBP co-precipitating with stCAAAY132A are indicated. The molecular weight marker in kDa is shown. (b) Same amounts of stCAAA and the non-particulate stCAAAY132A (2  $\mu$ g; calculated for same amounts of monomers determined by SDS-PAGE) were subjected to native agarose gels stained with ethidium bromide (EB) and subsequent with Coomassie Blue (CB). The original gel used to generate this cropped figure is shown in Supplementary Fig. S9. (c) B6 mice were immunized with recombinant HEK-293 derived stCAAA and stCAAAY132A antigens (n = 5/6). Serum samples were obtained 21 days post injection and analyzed for Core-specific IgG, IgG1 and IgG2b antibody titers by end-point dilution ELISA using bacterial rHBV-C149 as detection antigen. Mean specific antibody titers in sera  $\pm$ SD of a representative experiment (out of two performed experiments) (d) and the calculated IgG1/IgG2a ratios  $\pm$ SD are shown. (c and d) Statistically significant differences between the group 1 and group 2 were determined using the unpaired student's t-test. P values of <0.01 (\*\*) and p < 0.001 (\*\*\*) were considered statistically significant. Figure provided by CiteAb. Source: Sci Rep, PMID: 30279478.

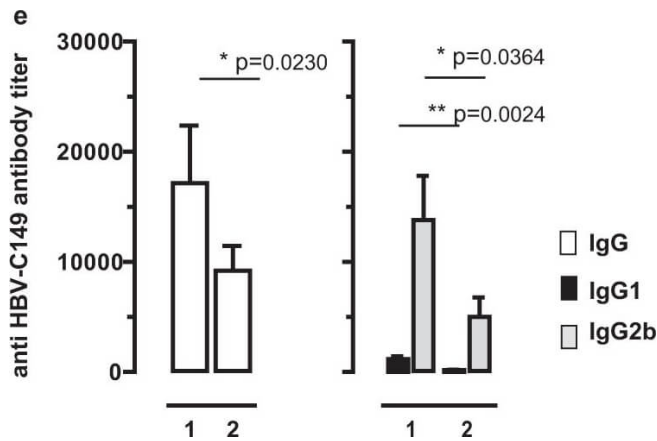


### ELISA

Characterization of antibody responses induced by DNA vaccines expressing particulate and non-particulate core antigens. (a–f) Mice were immunized intradermally with 2 μg particle-coated plasmids with the gene gun (see Supplemental protocols). At d21 mice were boosted with the same vectors. The specific serum Ab responses and isotype profiles (IgG, IgG1, IgG2a) were determined 12 days post boost immunization by end-point dilution ELISA using bacterial rHBV-C149 particles as detection antigen and IgG1/IgG2a ratios were calculated. (a,b) B6 mice (n = 3/4) were immunized with pCI/stC149tat or pCI/stC149 vectors. (c,d) B6 and TLR7<sup>-/-</sup> mice (n = 3/5) were immunized with pCI/stC149tat. (e,f) B6 mice (n = 5/5) were immunized with pCI/stCAA or pCI/stCAAAY132A plasmid DNA. Mean specific antibody titers in sera (a,c,e) and the calculated IgG1/IgG2a ratios ±SD (b,d,f) of representative experiments (out of two experiments performed) are shown. Where indicated, the statistical significance of differences in IgG, IgG1 and IgG2b antibody titers was determined by the unpaired Student's t-test. P values of < 0.05 (\*) and < 0.005 (\*\*) were considered statistically significant. Figure provided by CiteAb. Source: Sci Rep, PMID: 30279478.

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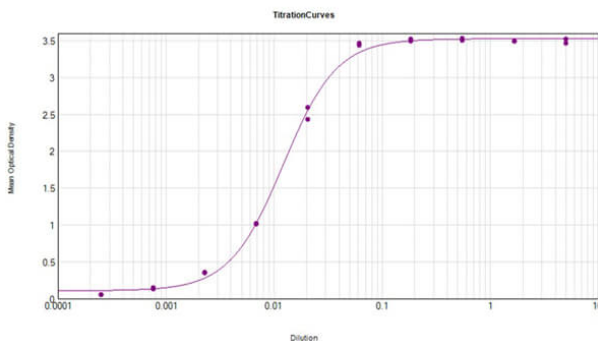


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#### ELISA

ELISA Results of Rabbit Anti-Mouse IgG2b Antibody Peroxidase Conjugation tested against purified Mouse IgG2b HRP. Each well was coated in duplicate with 1.0  $\mu$ g of Mouse IgG2b (p/n 010-0142). The working dilution is 1:82,000. The starting dilution of antibody was 5  $\mu$ g/ml and the X-axis represents the Log<sub>10</sub> of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC<sub>50</sub> is defined as the titer of the antibody. Assay performed using TMB substrate (p/n TMBE-1000).



## References

- Krieger et al. Cationic domains in particle-forming and assembly-deficient HBV core antigens capture mammalian RNA that stimulates Th1-biased antibody responses by DNA vaccination. *Scientific Reports* (2018)
- Wojdyla K et al. The SNO/SOH TMT strategy for combinatorial analysis of reversible cysteine oxidations. *J Proteomics*. (2015)

## 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.