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Datasheet for 600-103-200

# GST Antibody HRP Conjugated

## Overview

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| **Description:** | Anti-GST (GOAT) Antibody Peroxidase Conjugated - 600-103-200 |
| **Item No.:** | 600-103-200 |
| **Size:** | 1 mg |
| **Applications:** | ELISA, WB |
| **Reactivity:** | GST-Tag |
| **Host Species:** | Goat |

## Product Details

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| **Background:** | GST Antibody HRP Conjugated is specific for the GST affinity tag. Affinity tags re appended to proteins thereby allowing them to be purified from their crude biological source using an affinity technique. Common affinity tags include glutathione-S-transferase (GST), chitin binding protein (CBP), maltose binding protein (MBP), and the poly-Histidine or HIS-tag. Rockland produces a wide range of GST antibodies in our laboratories. Select GST antibodies from several monoclonal and/or polyclonal GST antibodies listed below. Select appropriate GST antibodies for your research by isotype, epitope, applications and species reactivity. GST (Glutathione-S-Transferase) is a protein expression tag commonly used in molecular biology. Anti-GST will react with synthetic construct present in most known GST containing cloning or expression vectors. GST is responsible for the conjugation of reduced glutathione to a wide number of exogenous and endogenous hydrophobic electrophiles. The amino acid sequence GST is highly conserved in most organisms including mammals. GST exists as a 26 kDa homodimer. |
| **Synonyms:** | goat anti-GST antibody HRP conjugation, peroxidase conjugated goat anti-GST antibody, Glutathione-S-Transferase, GST antibody, anti-GST antibody, anti-Glutathione-S-Transferase antibody |
| **Host Species:** | Goat |
| **Conjugate:** | Peroxidase (HRP) |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |

## Target Details

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| **Reactivity:** | GST-Tag |
| **Immunogen Type:** | Native Protein |
| **Immunogen:** | Glutathione-S-Transferase [Schistosoma japonicum] |
| **Purity/Specificity:** | Anti-GST HRP Conjugated antibody was prepared from monospecific antiserum by immunoaffinity chromatography using GST coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, anti-Peroxidase, as well as purified and partially purified Glutathione-S-Transferase [Schistosoma japonicum]. Cross reactivity against Glutathione-S-Transferase from other sources may occur but has not been specifically determined. |
| **Relevant Links:** | • 600-103-200-SDS |

## Application Details

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| **Tested Applications:** | ELISA, WB |
| **Application Note:** | Anti-GST peroxidase conjugated Antibody has been tested by ELISA and western blot and is suitable for immunoblotting, ELISA, immunohistochemistry, immunomicroscopy as well as other antibody based assays using peroxidase conjugates requiring lot-to-lot consistency. Optimal concentrations in these or other immunoassays should be determined by the researcher. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:20,000 |
| **IHC:** | 1:500 - 1:2,000 |
| **WB:** | 1:2,000 - 1:5,000 |

## Formulation

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

## Shipping & Handling

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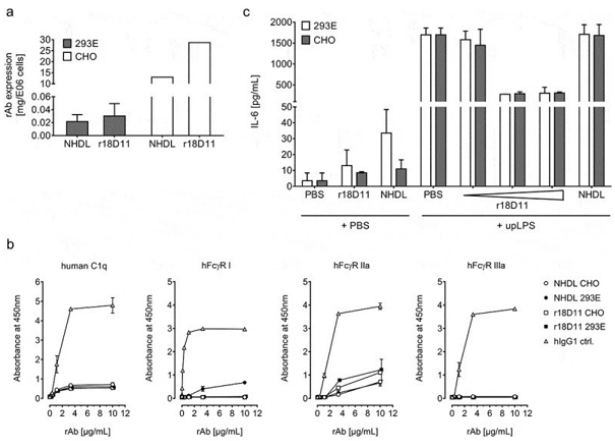
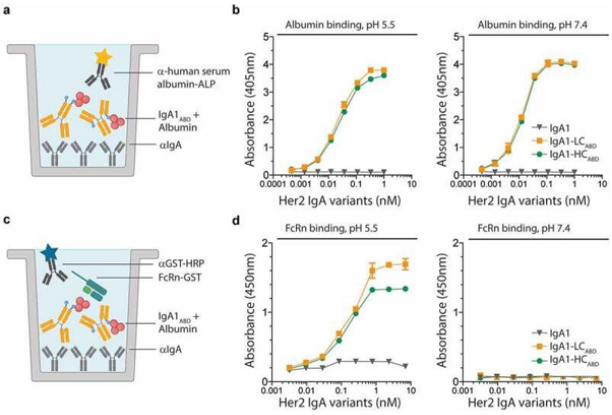
| **Shipping Condition:** | Ambient |
| **Storage Condition:** | Store anti-GST at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This 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

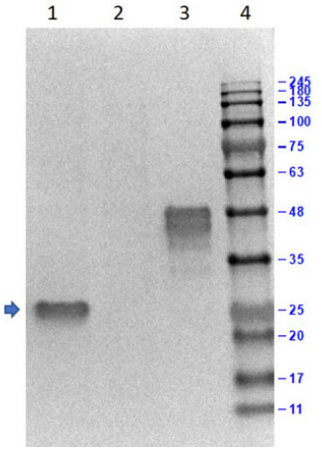



**ELISA**
A, The expression of recombinant NHDL and r18D11 by stably transfected CHO-K1SP cell pools (fed-batch) was compared to transient expression by HEK293E cells (batch-batch). Cell culture supernatants were analyzed for IgG levels using ELISA. Results are given as single value mg IgG per E06 CHO cells (n = 1), and mean mg IgG ± S.E.M. per E06 HEK293E cells for NHDL (n = 3) and r18D11 (n = 6). B, Binding of increasing concentrations of CHO- and HEK293E-produced NHDL or r18D11 to recombinant human C1q or recombinant human Fcγ receptors hFcγRI, hFcγRIIa, and hFcγRIIIa at pH 7.4 was measured by ELISA. As a positive control, a recombinant human IgG1 antibody (bevacizumab (Avastin®), Roche) was included in the analysis. The results are shown as relative units for the absorbance at 450 nm (n = 2; mean ± S.D.). C, Human whole blood was incubated with CHO- or HEK293E-produced r18D11 (1.5, 15 and 30 µg/mL) or NHDL (15 µg/mL) in the presence of 100 ng/mL upLPS. As controls, 15 µg/mL r18D11 or NHDL were incubated in the presence of PBS, only. Plasma IL-6 was measured using Bioplex technology. Data are given as pg/mL (n = 2; mean ± S.D.). Fig 5.
PMID: 31671278




**ELISA**

Human albumin binds IgA1-fused ABD in a pH-independent manner but human FcRn in a pH-dependent manner. A-B) ELISA showing binding of titrated amounts of ABD-fused IgA1 variants to human albumin at both pH 5.5 and 7.4. The numbers represent the mean±s.d. of duplicates. C-D) ELISA showing pH-dependent binding of ABD-fused IgA1 in complex with human albumin to human FcRn. The numbers represent the mean±s.d. of duplicates. Figure A and C were made with bioRender. Fig 2. PMID: 33691596




**Western Blot**

Western Blot Results of Goat Anti-GST Antibody Peroxidase Conjugated. Lane 1: rec GST (p/n 000-001-200)/HeLa WCL (p/n W09-000-364) [0.03/10µg]. Lane 2: HeLa Whole Cell Lysate (p/n W09-000-364) [10µg]. Lane 3: 12 Epitope GST Lysate (p/n MB-302-0100) [0.5µg]. Lane 4: Opal Prestained 11-245 kDa Molecular Weight Marker (p/n MB-210-0500). Antibody: Goat Anti-GST Peroxidase Conjugated Antibody at 1.0µg overnight at 4°C. BlockOut blocking buffer (p/n MB-073) for 1hr at RT. Predicted MW: 25kDa. Observed MW: 25kDa in lane 1. 48kDa in lane 4 for 12 Epitope GST Lysate. Exposure: 0.03 seconds.

## References

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- Lee, CH et al. An engineered human Fc domain that behaves like a pH-toggle switch for ultra-long circulation persistence. *Nature Communications* (2019)
- Lee et al. IgG Fc domains that bind C1q but not effector Fcγ receptors delineate the importance of complement-mediated effector functions. *Nature Immunology* (2017)
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