

**Product Specification Sheet**

**Product:** Biotin Conjugated IgG fraction of anti- $\beta$ -Galactosidase [*E.coli*] [Rabbit]

**Code:** 200-4636

**Lot #** 12904

**Size:** 10.0 mg

**Physical State:** Lyophilized

**Antibody Concentration:** 10.0 mg/ml (by UV absorbance at 280 nm)

**Label:** Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC)

**Biotin/Protein Ratio:** 10-20 BAC molecules per Rabbit IgG molecule

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Stabilizer:** 10 mg/ml BSA IgG and Protease free

**Preservative:** 0.01% (w/v) Sodium Azide

**Application Note(s):** Suitable for immunoblotting, ELISA, immunohistochemistry, immunomicroscopy as well as other antibody based assays using streptavidin or avidin conjugates requiring lot-to-lot consistency. The antibody recognizes both frozen tissue sections, paraffin embedded tissue and 4% paraformaldehyde fixed tissue for most immunohistochemical analysis. A 1:5,000 dilution has been reported to be successful for staining by immunoblot of beta-galactosidase fusion proteins after transfer using a semi-dry transfer apparatus. A 1:1,500 dilution has been reported to detect beta-galactosidase in adult rat spinal cord tissue after infection with helper-dependent adenovirus expressing *lacZ*. In this particular experiment, tissue was perfused with 4% paraformaldehyde and cryostat-cut (35  $\mu$ m) to produce free-floating sections. A 1:5,000 dilution has been reported to be successful for staining of brain sections from transgenic mice expressing nuclear beta-galactosidase when assayed by immunofluorescence microscopy. A 1:5,000 dilution has been reported for immunofluorescent staining of methanol fixed, devitellinized *Drosophila* embryos. Although a wide range of conditions was reported to be effective, a 1:10,000 dilution was noted to show no background and to be suitable for double labeling experiments. Optimal titers for other applications should be determined by the researcher.

**Recommended Dilution(s):**

<b>ELISA</b>	1:10,000 - 1:50,000
<b>WESTERN BLOT</b>	1:2,000 - 1:10,000
<b>IMMUNOHISTOCHEMISTRY</b>	1:1,000 - 1:5,000
<b>OTHER APPLICATIONS</b>	User Optimized

**Storage Conditions:** Store vial at 4° C prior to restoration. Restore with 1.0 ml of deionized water (or equivalent). 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 date is one (1) year from date of restoration.

**Purity and 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-Biotin, anti-Rabbit Serum as well as purified and partially purified  $\beta$ -Galactosidase [*E.coli*]. Cross reactivity against  $\beta$ -Galactosidase from other sources may occur but have not been specifically determined.

**Immunogen:**  $\beta$ -Galactosidase [*E.coli*]

**Conjugation Reference:** Bayer & Wilchek *Methods in Enzymology* **184**; 138-160, 1990.

**USDA Certification:** 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.

**Note:** 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.