

## Datasheet for 200-4236

**Beta Galactosidase Antibody Fluorescein Conjugated****Overview**

|                      |                                                                                       |
|----------------------|---------------------------------------------------------------------------------------|
| <b>Description:</b>  | Anti-Beta Galactosidase (E. coli) (RABBIT) Antibody Fluorescein Conjugated - 200-4236 |
| <b>Item No.:</b>     | 200-4236                                                                              |
| <b>Size:</b>         | 10 mg                                                                                 |
| <b>Applications:</b> | WB                                                                                    |
| <b>Reactivity:</b>   | b-GAL                                                                                 |
| <b>Host Species:</b> | Rabbit                                                                                |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Anti Beta Galactosidase Antibody recognizes the enzyme beta galactosidase, or $\beta$ -galactosidase, that is a component of assays used frequently in genetics, molecular biology (see X-gal) for a blue white screen, and other life sciences. IPTG induces production of $\beta$ -galactosidase by binding and inhibiting the lac repressor. Since it is highly expressed and accumulated in lysosomes in senescent cells, it is used as a senescence biomarker both in vivo and in vitro in qualitative and quantitative assays, despite its limitations. Anti-beta Galactosidase Antibody is ideal for investigators involved in enzyme research. |
| <b>Synonyms:</b>     | rabbit anti-Beta Galactosidase Antibody fluorescein Conjugation, FITC conjugated rabbit anti-Beta Galactosidase Antibody, rabbit anti-beta gal FITC conjugated antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Conjugate:</b>    | Fluorescein (FITC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>F/P Ratio:</b>    | 3.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

**Target Details**

|                        |                              |
|------------------------|------------------------------|
| <b>Reactivity:</b>     | b-GAL                        |
| <b>Immunogen Type:</b> | Native Protein               |
| <b>Immunogen:</b>      | Beta Galactosidase (E. coli) |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity/Specificity:</b> | 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-fluorescein, anti-Rabbit Serum and purified and partially purified Beta Galactosidase (E. coli). |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Relevant Links:</b> | <ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_414878.1</a></li><li>• <a href="#">UniProtKB - P00722</a></li></ul> |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|

## Application Details

|                             |                                                                                                                                                                                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | WB                                                                                                                                                                                                                                                    |
| <b>Application Note:</b>    | Anti-Beta Galactosidase Fluorescein Conjugated Antibody has been tested by western blot and is designed for fluorescent western blotting, also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                       |
| <b>IF:</b>                  | 1:500 - 1:2,500                                                                                                                                                                                                                                       |
| <b>WB:</b>                  | 1:10,000                                                                                                                                                                                                                                              |

## Formulation

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                            |
| <b>Concentration:</b>         | 5.0 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) 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)                           |

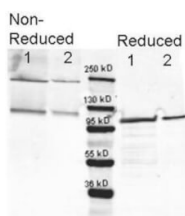
## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Ambient |
|----------------------------|---------|

**Storage Condition:** Store vial antibody 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



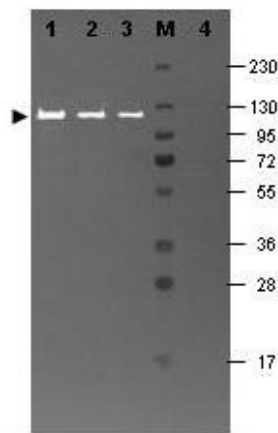
### Western Blot

Western blotting using Rockland's anti-b-Galactosidase antibody. Lane 1 shows 80 ng and lane 2 shows 20 ng loaded onto gel. Results for non-reducing conditions of SDS-PAGE prior to transfer to nitrocellulose are shown on the left side of the figure; results obtained under reducing conditions are shown on the right. Blots were blocked overnight at 4° C with Blocking Buffer for Fluorescent Western Blotting (p/n MB-070). The membrane was probed with anti-b-Galactosidase diluted to 1:10,000. Reaction occurred overnight at 4°C. Dylight649™ conjugated Gt-a-anti-Rabbit IgG (p/n 611-143-120) was used for detection. Molecular weight estimation was made by comparison to a prestained MW marker (center).in lane M. Fluorescence image was captured using the VersaDoc® Imaging System developed by BIO-RAD. Other detection systems will yield similar results.



### Western Blot

Western blot using Rockland's anti-b-Galactosidase antibody shows detection of a band at ~117 kDa (lane 1) corresponding to b-Gal present in a partially purified preparation (arrowhead). Approximately 1µg of protein was resolved on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking, the membrane was probed with the primary antibody diluted to 1:1,000. Reaction occurred overnight at 4° C followed by washes and reaction with a 1:10,000 dilution of IRDye® 800 conjugated Gt-a-Rabbit IgG (H&L) MX10 (611-132-122) for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red). IRDye® 800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



### Western Blot

Western blotting using Rockland's Fluorescein conjugated anti-b-Galactosidase antibody shows a band at ~117 kDa (lanes 1 - 3) corresponding to 60 ng, 30 ng and 15 ng, respectively of b-Gal present in partially purified preparations (arrowhead). Lane 4 shows no cross reactivity with proteins present in a non-specific control E.coli lysate. Proteins were resolved on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred to nitrocellulose and blocking using Blocking Buffer for Fluorescent Western Blotting (p/n MB-070). The membrane was probed with fluorescein conjugated anti-b-Galactosidase (p/n 200-4236) diluted to 1:10,000. Reaction occurred for 2 hours at room temperature. Molecular weight estimation was made by comparison to a prestained MW marker in lane M. Fluorescence image was captured using the VersaDoc® Imaging System developed by BIO-RAD. Other detection systems will yield similar results.

## 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.