

Product Specification Sheet**Product:** IRDye™ 800 Conjugated IgG fraction of anti-Beta Galactosidase [*E.coli*] [Rabbit]**Code:** 200-432-036**Lot #** 14973**Size:** 500 µg**Physical State:** Lyophilized**Antibody Concentration:** 1.0 mg/ml (by UV absorbance at 280 nm)**Label:** IRDye™ 800 (MW 1166.2)**Fluorochrome/Protein Ratio:** 3.8 moles IRDye™ 800 per mole of Rabbit IgG**Absorption Wavelength:** 778 nm**Emission Wavelength:** 806 nm**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**Stabilizer:** 10 mg/ml Bovine Serum Albumin (BSA)**Preservative:** 0.01% (w/v) Sodium Azide

Application(s): Fluorescence technology is widely used to detect proteins. However, many common visible fluorophores often result in considerable background fluorescence in the visible range. Visible fluorophores are rarely used for membrane-based protein detection because of this high background. IRDye™ 800 and IRDye™ 700DX antibody and reagent conjugates are specifically designed for protein detection methods that use longer-wavelength, near-infrared (IR) fluorophores to visualize proteins in western blotting and other applications. Very low background fluorescence in the IR range provides for a much higher signal-to-noise ratio than visible fluorophores. Detection levels in the picogram range on Western blots rival the sensitivity of chemiluminescence on film. IRDye™ 800 conjugates are optimized for the Odyssey® Infrared Imaging System developed by LI-COR. IRDye™ 800 conjugates are also suitable for immunofluorescence microscopy using commercially available excitation/emission filters in the 780nm/820nm range. Dual simultaneous labeling in western blots or microscopy is achieved when IRDye™ 800 conjugates are used in conjunction with IRDye™ 700 or Cy5.5™ conjugates. IRDye™ 800 and IRDye™ 700DX conjugates provide an ultra-sensitive and convenient alternative to standard chemiluminescent protein detection methods, as well as a valuable tool for multicolor imaging.

Recommended Dilution(s): This product was tested by immunoblot using antigen spotted to nitrocellulose membrane. A dilution range of 1:10,000 to 1:25,000 is suggested for this product to detect 12-25 pg of immobilized protein. Researchers should determine optimal titers for other applications.

Storage Conditions: Store vial at 4° C prior to restoration. Restore with 0.5 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-Rabbit Serum as well as purified and partially purified Beta Galactosidase [*E.coli*]. Very low background staining has been reported in various assays.

Immunogen: Beta Galactosidase [*E.coli*]**Conjugation Reference:** LI-COR Biosciences, Lincoln, NE.

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.

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