



800-656-7625
fax 610-367-7825

Certificate of Analysis

Product: Affinity Purified Anti-Lac I [Rabbit]

Code: 600-401-B04

Lot # 21384

Size: 100 µg

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.0 mg/ml (by UV absorbance at 280 nm)

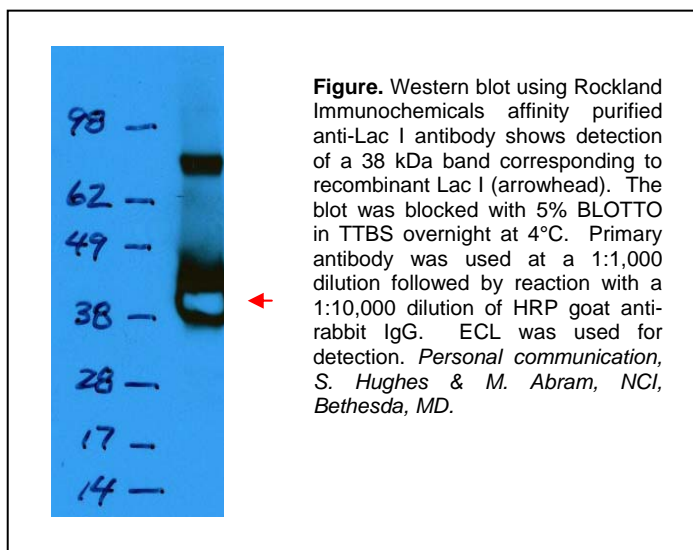
Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C or below prior to opening. Dilute only prior to immediate use. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

Background Information: The *lac* repressor protein (Lac I) is an important genetic control protein. It controls the expression of the lactose metabolizing enzymes in *Escherichia coli*. This regulation involves specific recognition of the operator DNA sequence (Lac O) and consequent inhibition of transcription initiation by RNA polymerase; modulation of binding at this target site by small sugar molecules, inducers, provides the basis for regulation. Different ligand binding activities are associated with the isolated domains of Lac I: specific and nonspecific DNA binding with the NH₂ termini, and inducer and specific DNA binding with the core protein. This antibody could possibly be used to recover and purify protein/nucleic acid complexes (host and viral proteins associated with the viral DNA) from infected cells.



Application Note(s): This affinity purified antibody has been tested for use in ELISA and western blotting using recombinant Lac I protein. Specific conditions for reactivity and detection of Lac I should be optimized by the end user. Expect a band approximately ~38 kDa in size corresponding to Lac I by western blotting in the appropriate cell lysate or extract.

Recommended Dilutions:

ELISA	1:90,000 – 1:100,000
WESTERN BLOT	1:500 to 1:2,000
IMMUNOPRECIPITATION	User Optimized
IF MICROSCOPY	User Optimized
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This product was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with recombinant Lac I protein. A BLAST analysis was used to suggest cross-reactivity with Lac I from DNA-binding transcriptional repressor in *Escherichia coli* (strain DH10B) and transcriptional repressor of the lac operon in *Shigella sonnei* (strain Ss046) based on a 100% homology with the immunizing sequence. Cross-reactivity with Lac I from other sources has not been determined.

Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a full-length recombinant Lac I protein.

Relevant Links: NCBI [AAA24052](#) Swiss-Prot [P03023](#)

Related Products:

#[611-703-127](#) Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10
 #[611-132-122](#) IRDye® 800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
 #[611-145-122](#) DyLight™ 680 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
 #[B501-0500](#) BLOTTO (500 g)
 #[BSA-30](#) 30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer) (500 ml)
 #[B304](#) NORMAL GOAT SERUM (NGS) (10 ml)
 #[KIA-003](#) **MaxTag™** Anti-RABBIT IgG Kit for Immunoblotting
 #[MB-070](#) Blocking Buffer for Fluorescent Western Blotting

General References:

Oh J., Julias, JG, Ferris AL, and Hughes SH. (2002) Construction and characterization of a replication-competent retroviral shuttle vector plasmid. *J. Virol* 76(4):1762

Oh J, Chang KW, and Hughes SH (2006) Mutations in the U5 Sequences Adjacent to the Primer Binding Site Do Not Affect tRNA Cleavage by Rous Sarcoma Virus RNase H but Do Cause Aberrant Integrations In Vivo *J. Virol* 80(1):451

Sams CF, Hemelt VB, Pinkertone FD, Schroeffer GJ, Matthews KS (1985) Exposure of antigenic sites during immunization. Monoclonal antibodies to monomer of lactose repressor protein *J Biol. Chem.* 260(2):1185-1190

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. 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 326, Gilbertsville, Pennsylvania, USA.