

Datasheet for PA00-05**Protein A Alkaline Phosphatase Conjugated****Overview**

Description:	Protein A Alkaline Phosphatase Conjugated - PA00-05
Item No.:	PA00-05
Size:	1 mg
Applications:	Dot Blot, ELISA, LFA
Origin:	Staphylococcus aureus

Product Details

Background:	Protein A is a cell wall protein originating from the bacterium <i>Staphylococcus aureus</i> . Protein A binds to immunoglobulins through interaction with the IgG heavy chain within the Fc region. Affinity to Fc may vary depending on IgG species origins or subclasses. Protein A is predicted 42kDa based on sedimentation data and observed to run ~55-56kDa on SDS-Page. Alkaline Phosphatase is an enzyme which removes phosphate groups from a variety of substrate molecules. As the name implies, this enzyme functions best under basic pH. Alkaline Phosphatase can be utilized in molecular biology in DNA ligation experiments (keeping the DNA linear), radiolabeling preparations, and a detection mediator in ELISA experiments.
Synonyms:	ProA, <i>Staphylococcus A</i> protein, ALP, Protein A Alk Phos
Species of Origin:	<i>Staphylococcus aureus</i>
Conjugate:	Alkaline Phosphatase (AP)

Target Details

Purity/Specificity:	Protein A Alkaline Phosphatase Conjugated was prepared from chromatographically pure Protein A. Protein A Alkaline Phosphatase Conjugated assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Alkaline Phosphatase (calf intestine) and anti-Protein A. No reaction was observed against anti-Protein G.
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Application Details

Tested Applications:	Dot Blot, ELISA
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Suggested Applications:	LFA (Based on references)
Application Note:	Protein A Alkaline Phosphatase Conjugated has been tested by ELISA and dot blot and is suitable as a detection agent for primary antibodies that are of the IgG isotype. With the addition of pNPP in ELISA experiments, a yellow product is generated that can be detected on a plate reader.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:8,000 - 1:32,000
IHC:	1:200 - 1:1,000
WB:	1:500 - 1:2,500

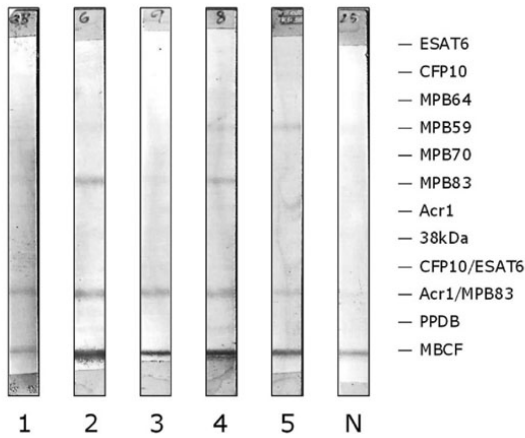
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.05 M Tris Chloride, 0.15M Sodium Chloride, 0.001M Magnesium Chloride, 0.0001M Zinc Chloride, 50% (v/v) Glycerol; pH 8.0
Preservative:	0.1% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C before opening. DO NOT FREEZE. Protein A Alkaline Phosphatase Conjugated is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. Freezing alkaline phosphatase conjugates will result in a substantial loss of enzymatic activity.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot

Antibody responses to multiple Mycobacterium tuberculosis-complex antigens in a meerkat with Mycobacterium bovis infection revealed by multiantigen print immunoassay (MAPIA) of sequential serum samples. Incubated with alkaline phosphatase-conjugated protein A (p/n PA00-05). Antigens are indicated in the right margin, with a band visible on each strip where antibody is present. Samples were collected at the following time points: 1 = 0 months (December 2005); 2 = 8 months (August 2006); 3 = 10 months (October 2006); 4 = 15 months (March 2007); 5 = 17 months (May 2007). N = negative control. Fig 1. PMID: 19139498.

Lateral Flow

Rapid test (lateral flow immunoassay) results of sequential serum samples from a meerkat with Mycobacterium bovis infection. In the test window, the upper line (labeled C) is an internal positive control indicating mobility of the serum sample and diluent across the membrane. The lower bands of reactivity (labeled T) visualized on samples 1–5 indicate a positive reaction to the test antigens. Relative test band strengths are given in brackets: 1 = 0 months (+); 2 = 8 months (++); 3 = 10 months (+++); 4 = 15 months (++); 5 = 17 months (+++). N = negative control. Tracheal washes collected from the same animal at time points 1 and 5 cultured positive for M. bovis. Fig 2. PMID: 19139498.



References

- Julian A Drewe et al. Accuracy of three diagnostic tests for determining Mycobacterium bovis infection status in live-sampled wild meerkats (Suricata suricatta). *J Vet Diagn Invest.* (2009)

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.