

Datasheet for B000-05**Biotin Alkaline Phosphatase Conjugated****Overview**

Description:	Biotin Alkaline Phosphatase Conjugated - B000-05
Item No.:	B000-05
Size:	1 mg
Applications:	Dot Blot, ELISA, Other

Product Details

Background:	Biotin is a small biomolecule important for many cellular processes. Most importantly for biotechnology applications, biotin is amenable to conjugation to proteins for use in biochemical assays. Biotin has a very strong affinity for avidin and streptavidin; an attraction that is the strongest and most stable non-covalent interaction known. Biotin Alkaline Phosphatase Conjugated is ideal for investigators in Immunology, Cancer, Neuroscience, and Cell Biology.
Synonyms:	Biotin Alkaline Phosphatase Conjugated, Biotin alk phos Conjugated, alkaline phosphatase conjugated biotin
Conjugate:	Biotin

Target Details

Purity/Specificity:	This product was prepared from electrophoretically pure Alkaline Phosphatase and Biotin. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Alkaline Phosphatase (calf intestine) and anti-Biotin.
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Application Details

Tested Applications:	Dot Blot, ELISA
Suggested Applications:	Other (Based on references)
Application Note:	Biotin Alkaline Phosphatase Conjugated has been tested by ELISA and dot blot and can be utilized in ELISA and Western Blotting experiments where the assay's target of interest is coupled with streptavidin.

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

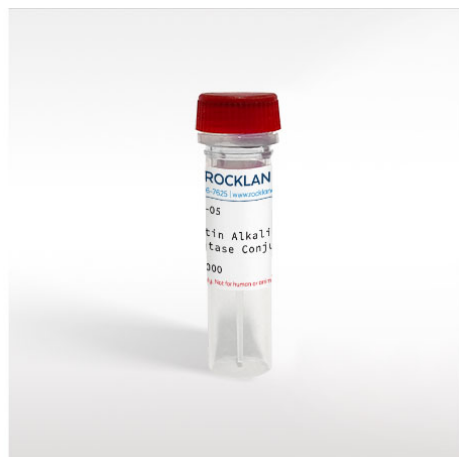
Formulation

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:	0.05% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Shipping & Handling

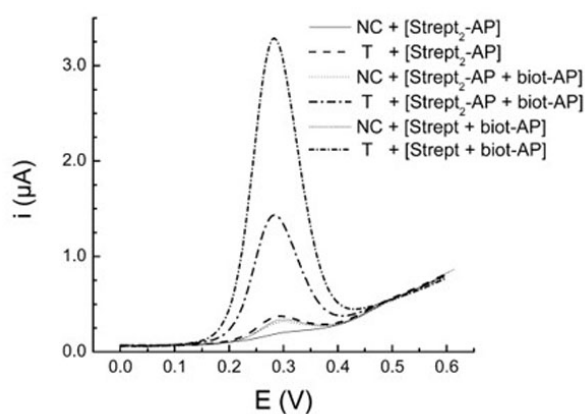
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C before opening. DO NOT FREEZE. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. Freezing alkaline phosphatase conjugates will result in a substantial loss of enzymatic activity.
Expiration:	Expiration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

Images



Bottle

Biotin Alkaline Phosphatase Conjugated

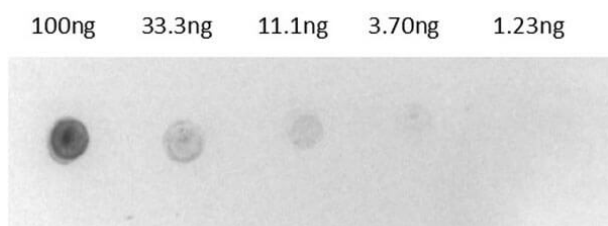


Figure

Detection of 2 nmol/L of a 48-mer synthetic oligonucleotide target (T) using the Strept2-AP conjugate, a single generation of the Strept2-AP/(biot-AP) assembly, or a single generation of the Strept/(biot-AP)k complex. A noncomplementary oligo (NC) was used as the negative control. The Strept2-AP solution used for the conventional assay and for assembling the Strept2-AP/(biotAP) architectures was 10 μ L of 3.1×10^{-15} mol/ μ L Strept2-AP + 10 mg/mL BSA in DEA buffer; 10 min of interaction. Further details are described in the Experimental Section. Figure 3. PMID: 16618179.

Dot Blot

Dot Blot results of Biotin Alkaline Phosphatase Conjugate. Dots are Streptavidin: (1) 100ng, (2) 33.3ng, (3) 11.1ng, (4) 3.70ng, (5) 1.23ng. Primary Antibody: none. Secondary Antibody: Biotin-Alk Phos at 1ug/mL in MB-070 1hr RT. Imaged with BioRad ChemiDoc, Colorimetric filter.



References

- Sharma H et al. A Mem-dELISA platform for dual color and ultrasensitive digital detection of colocalized proteins on extracellular vesicles. *Biosens Bioelectron.* (2025)
- Bettazzi F et al. Alkaline-phosphatase-based nanostructure assemblies for electrochemical detection of microRNAs. *J Nanosci Nanotechnol.* (2015)
- Lucarelli F et al. Dendritic-like streptavidin/alkaline phosphatase nanoarchitectures for amplified electrochemical sensing of DNA sequences. *Langmuir.* (2006)

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.