

Datasheet for PG00-05**Protein G Alkaline Phosphatase Conjugated****Overview**

Description:	Protein G Alkaline Phosphatase Conjugated - PG00-05
Item No.:	PG00-05
Size:	500 µg
Applications:	Dot Blot, ELISA, WB
Origin:	Streptococcus sp.

Product Details

Background:	Protein G is a surface protein of two groups of Streptococcal bacteria that has the ability to bind immunoglobulins. Similar to Protein A, but with slightly different specificity, Protein G is an important agent in the purification of proteins due to its ability to bind the Fc region. While native Protein G binds to albumin, recombinant Protein G is designed to contain only immunoglobulin binding domains to ensure the maximum specific IgG binding capacity. 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. Protein G Alkaline Phosphatase Conjugated is ideal for investigators involved in Signal Transduction, Molecular Biology, Cancer, and Cell Signaling.
Synonyms:	ProG, Streptococcus G protein, ALP, Alk Phos
Species of Origin:	Streptococcus sp.
Conjugate:	Alkaline Phosphatase (AP)

Target Details

Purity/Specificity:	Protein G Alkaline Phosphatase Conjugated was prepared from chromatographically pure recombinant Protein G. Protein G Alkaline Phosphatase Conjugated assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Alkaline Phosphatase (calf intestine) and anti-Protein G. No reaction was observed against anti-Protein A.
Relevant Links:	UniProtKB - P19909

Application Details

Tested Applications:	Dot Blot, ELISA
Suggested Applications:	WB (Based on references)
Application Note:	Protein G 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:	0.05% (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 Protein G at 4° C before opening. DO NOT FREEZE. Protein G 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.

References

- Krajewska-Wędzina M. et al. Transboundary tuberculosis: Importation of alpacas infected with *Mycobacterium bovis* from the United Kingdom to Poland and potential for serodiagnostic assays in detecting tuberculin skin test false-negative animals. *Transbound Emerg Dis.* (2020)

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.