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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)

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