Peroxidase-Labeled Protein A from S. aureus

Catalog No.	Size
14-50-00	0.5 mg

Description
Chromatographically purified Protein A obtained from Staphylococcus aureus and labeled with horseradish peroxidase.

FORM/STORAGE
Lyophilized. Store at 2 – 8°C until rehydrated. Stable for a minimum of one year at 2 – 8°C.

STABILIZER AND PRESERVATIVE
Bovine serum albumin (BSA) added as protein stabilizer. No preservatives added. Additional biological protection may be provided with 0.01% thimerosal. DO NOT USE SODIUM AZIDE. Non-sterile.

E/P RATIO
Molar enzyme/antibody protein ratio = 2:1

SPECIFICITY/CROSS-REACTIVITY
Peroxidase-labeled Protein A adheres to the IgG of most animals[1] (Table 1). The affinity of Protein A to immunoglobulins increases with increasing pH to pH 8.5 and with increasing ionic strength to 0.3M. Low concentrations (0.05%) of Tween 20 markedly reduce the affinity of Protein A for IgG. To obtain optimal performance of this reagent, the user must adjust the pH, conductivity and detergent level to the needs of his experiment. KPL tests each lot of Protein A for reactivity to human, rabbit, mouse and swine IgG only.

TABLE 1

SPECIES	CLASSES/SUBCLASSES THAT PROTEIN A BINDS
Man	IgG_1, IgG_2, IgG_4 and IgA_2
Rabbit	IgG and some IgM
Mouse	IgG_{2a}, IgG_{2b}, IgG_3 and some IgG_1
Sheep	IgG_2
Goat	IgG_2
Rat	IgG_1 and IgG_{2c}
Dog	IgG_a, IgG_b, IgG_c, IgG_d, IgA and some IgM
Guinea Pig	IgG_1 and IgG_2
Pig	IgG
Cow	IgG_2

REHYDRATION AND STORAGE
Rehydration:
Rehydrate with 1 mL of reagent quality water. Dilute to desired concentration with PBS or other buffer.

Storage:
This product may be stored for up to 1 week refrigerated; thereafter, it should be stored frozen. When frozen, product is stable for a minimum of 1 year.
NOTE: Variations in temperature due to freeze cycles may cause loss of activity when rehydrated product is stored frozen in aliquots less than 50 µL.

SUGGESTED WORKING CONCENTRATION
Different assay conditions require that serial dilutions of all reagents be performed to determine optimal working concentrations. Prepare working dilution immediately before use. Storage at working dilution may result in enzyme inactivation and performance loss. Suggested starting concentrations are as follows:

Microwell Plate Immunoassays:	1/500 (1.0 µg/mL)
Membrane Immunoassays:	1/2500 (0.2 µg/mL)
Histo/Cytochemical Procedures:	1/100 (5.0 µg/mL)

CAUTION
Horseradish peroxidase is inactivated in the presence of hydrogen peroxide by reacting irreversibly with certain pollutants common in laboratory water supplies. If this product fails to perform as expected, check water supply for enzyme inactivation.

PRODUCT SAFETY AND HANDLING
This product is considered non-hazardous as defined by The Hazard Communications Standard (29 CFR 1910.1200). Avoid contact with skin and eyes. In case of contact or spillage, clean with copious amounts of water. Disposal via sanitary sewer.

RELATED PRODUCTS

10% BSA Diluent/Blocking Solution	Catalog No. 50-61-00
Coating Solution Concentrate	Catalog No. 50-84-00
Milk Diluent/Blocking Solution	Catalog No. 50-82-01
Wash Solution Concentrate	Catalog No. 50-63-00

Suggested KPL Peroxidase Substrates

ELISA:	
ABTS Microwell Substrate	Catalog No. 50-66-00
SureBlue Microwell Substrate	Catalog No. 52-00-01
Immunoblotting:	
4CN Substrate System	Catalog No. 50-73-00
TMB Membrane Substrate	Catalog No. 50-77-03

Immunohistochemistry:

HistoMark® TrueBlue	Catalog No. 54-78-00
HistoMark®ORANGE	Catalog No. 54-74-00
HistoMark®BLACK	Catalog No. 54-75-00

See the KPL catalog for a wide selection of antibodies, substrate, protein and nucleic acid detection kits and immunohistochemistry reagents.

Gaithersburg, MD • USA
301-948-7755 • 800-638-3167 • FAX 301-948-0169 • www.kpl.com