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TECHNICAL INFORMATION

cappel

Catalog Number: 55901

Peroxidase-Conjugated Protein A

Form: Liquid. The product is in 10mM phosphate, 0.15M NaCl buffer, pH 7.4, 1% ovalbumin, 40% glycerol.

Description: This product is a conjugate of Protein A and highly purified (Rz >3.0) horseradish peroxidase.

Protein A is a component of the cell wall of *Staphylococcus aureus* (Cowan 1 Strain), and binds to the Fc portion of immunoglobulin molecules of most mammalian species. It is composed of a single polypeptide chain of molecular weight 42,000. Protein A binds IgG molecules and, in some cases, IgM and IgA.

Uses: Peroxidase-Conjugated Protein A is a versatile reagent which is useful in many immunological assay systems. It is intended for use in cell and tissue staining, dotting and blotting, ELISA and other immunoassays. For each specific experiment, the product should be titered to maximize signal to background.

Technique: Cell/tissue staining

Dotting/blotting 1:500 - 1:1,000

Enzyme Immunoassays

Substrate solution = 1 mM ABTS in 0.1M citrate buffer, pH 4.2, containing 0.03% hydrogen peroxide.

Suggested Trial

Dilutions: 1:100 - 1:200

1:8,000 - 1:16,000

Binding

Characteristics

of Protein A^{5,6}: Species Classes/Subclasses Bound

Human IgG₁, IgG₂, IgG₄ and IgA

Rabbit IgG and some IgM

Mouse IgG_{2a}, IgG_{2b}, IgG₃ and some IgG

Sheep IgG₂

Goat IgG₂

Rat IgG₁ and IgG_{2c}

Dog IgG_a, IgG_b, IgG_c, IgG_d, IgA and some IgM

Guinea Pig IgG₁ and IgG₂

Pig IgG

Cow IgG₂

Note: Consult references for specific binding conditions for given classes/subclasses

References:

1. Biberfeld, P., Ghetie, V. and Sjoquist, J., Demonstration and assaying of IgG antibodies in tissue and on cells by labeled staphylococcal Protein A. **J. Immunol. Meth.** **6**, 249-259, 1975.
2. Goodling, J.W., Use of staphylococcal Protein A as an immunological reagent. **J. Immunol. Meth.** **20**, 241-253, 1978.
3. Grangeot-Keros, L. et al., A critical study of the use of staphylococci containing Protein A for separation of IgG and IgM antibodies. **J. Immunol. Meth.** **5**, 183-195, 1982.
4. Hsu, S. and L. Raine, Protein A, avidin and biotin in immunochemistry. **J. Histochem. Cytochem.** **29**, 1349-1353, 1981.
5. Richman, D., Cleveland, P. Oxman and Johnson, K., The binding of staphylococcal Protein A by the sera of different animals. **J. Immunology** **5**, 2300-2305, 1982.
6. Lindmark, R., Thoren-Tolling, K. and Sjoquist, J., Binding of immunoglobulins to Protein A and immunoglobulin levels in mammalian sera. **J. Immunology** **62**, 1-13, 1983.

Related Product Ordering Information:

Catalog #DescriptionSize

55832 Protein A 2 mg

55965 Alkaline Phosphatase-Conjugated Protein A 2 mg

55908 Purified Human IgG 50 mg

55944 Purified Rabbit IgG 50 mg

36315 DAB 6x1 ml

36317 OPD 6x1 ml

36318 TMB 6x1 ml

36319 ABTS 6x1 ml

ABTS is a registered trademark of Boehringer Mannheim GmbH.

Note: This product may contain a preservative such as sodium azide, thimerosal or proclin. Please see lot specific chemical

credential for preservative information.