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## Product Information

### Protein A-Peroxidase

from *Staphylococcus aureus*, horseradish

Catalog Number **P8651**

Storage Temperature  $-20\text{ }^{\circ}\text{C}$

Synonym: Protein A-HRP

### Product Description

Protein A-Peroxidase was prepared from extracellular Protein A coupled to horseradish peroxidase, Type VI, by a modification of O'Sullivan's procedure, which favors low molecular mass conjugates.<sup>1</sup>

Protein A is a polypeptide isolated from *Staphylococcus aureus* that binds the Fc region of immunoglobulin molecules without interacting at the antigen binding site.<sup>2</sup> Therefore, Protein A can be used in a variety of applications for detection of antibodies. With a given secondary antibody, the Protein A-antibody-antigen complex can be detected in a number of ways. Protein A is available with a number of labels (including alkaline phosphatase, biotin, and fluorescent dyes) as well as horseradish peroxidase.

### Component

The product is a lyophilized powder.

### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### Preparation Instructions

A stock solution of this product can be prepared in phosphate buffered saline or other neutral buffer at 1 mg/mL. The solution should be stable for about one week when stored at  $2-8\text{ }^{\circ}\text{C}$ . For long-term storage, the stock solution should be frozen in aliquots at  $-20\text{ }^{\circ}\text{C}$ .

### Product Profile

The product may also be used in direct ELISA, immunoblotting (chromogenic and chemiluminescent), and immunohistochemistry. The specific concentrations for use of protein A-HRP must be determined in each application. However, beginning with a stock solution at 1 mg/mL in neutral buffer, the following dilution is suggested:

Direct ELISA: working dilution of  $\geq 1:80,000$  is recommended.

The immunoglobulin levels in sera and the degree of IgG binding to Protein A have been reported.<sup>3</sup> The specificity of Protein A-peroxidase was compared to that of avidin-biotin-peroxidase.<sup>4</sup>

### References

1. O'Sullivan, M.J. et al., *FEBS Lett.*, **95**, 311 (1978).
2. Surolia, A. et al., *Trends Bioch. Sci.*, **7**, 74 (1981).
3. Lindmark, R. et al., *J. Immunol. Methods*, **62** 1-13 (1983).
4. Hsu, S-M., and Raine, L., *J. Histochem. Cytochem.*, **29**, 1349-1353 (1981).

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