



## Product Information

### PROTEIN A - 20 NM COLLOIDAL GOLD LABELED

Product Number **P 9785**

#### Preparation Instructions

Product should be diluted for most applications. It is recommended that diluent buffer contain 0.15 M saline buffered at pH 6 to 8, plus 0.5% albumin (Product No. A 7638) and 0.05% Tween 20 to minimize background (additional buffer supplement may be required for certain applications e.g., see "dot blot" diluent). It is also recommended that, prior to application, the diluted conjugate be allowed to equilibrate at least 20 minutes in lower glycerol content. Optimum concentration of the conjugate must be determined empirically dependent on specific usage and generally may range from final  $A_{520} = 1.0$  to 0.05 (1:5-1:100 dilution) with incubation times ranging from 30 min to 12 hr.

Suggested review: Roth, J., Techniques in Immunocytochemistry, Vol 2, G.R. Bullock and P. Petrusz, Eds., Academic Press, New York, p 217-284 (1983) (Sigma Prod. T 7400)

#### Storage/Stability

Product may be stored for extended periods as packaged (undiluted) at  $-20^{\circ}\text{C}$ . Diluted samples should **not** be stored below  $0^{\circ}\text{C}$  as freezing may cause aggregation of the colloid.

#### Results

Binding Activity- detects approx. 4 ng of Human IgG (Product No. I 4506)  
Binding is evaluated by a "dot blot" assay modified from the method of Brada and Roth.<sup>2</sup> Serial dilutions are prepared from a 1 mg/ml positive control protein solution. One microliter (1  $\mu\text{l}$ ) of each solution is adsorbed onto a nitrocellulose membrane and allowed to dry. The gold conjugate is diluted to  $A_{520} = 0.25$  (approx. 1:20) with 0.15 M NaCl, 0.01 M Tris, pH 7, 5 mg/ml albumin, and 0.05% Tween 20. The spotted membranes are incubated with the gold for 1 hr at  $25^{\circ}\text{C}$ . The detection limit is the minimum amount of protein that can be detected as a pink-red spot on the membrane.

#### References

1. Ackerman, G.A., et al., J. Histochem. Cytochem., **31**, 433 (1983).
2. Brada, D. and Roth, J., Anal. Biochem., **142**, 79 (1984).
3. Bendayan, M., J. Electron Microscopy Technique **1**, 243 (1984)
4. Bendayan, M., J. Histochem. Cytochem., **30**, 81 (1982)

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