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ProductInformation

ANTI-HUMAN IgM (μ-CHAIN SPECIFIC)
GOLD CONJUGATE, 10 NM
Affinity Isolated Antigen Specific Antibody

Product No. **G 0911**

Product Description
Antiserum is developed in goat using human IgM purified from normal human serum as the immunogen. The antibody is isolated by immunospecific methods of purification to remove essentially all goat serum proteins, including immunoglobulins which do not specifically bind to the μ-chain of human IgM. The affinity isolated specific antibody is then conjugated to 10 nm gold particles and excess antibody is removed.

Reagents
The conjugate is provided as colloidal suspension in 0.02 M Tris buffered saline, pH 8.0, with 1% BSA and 20% glycerol as stabilizers, containing 0.05% sodium azide as a preservative.

Precautions and Disclaimer
Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Specificity
Specificity for the μ-chain of human IgM is determined by Dot Blot Assay (DBA) using human IgG, IgA and IgM. No reactivity with human IgG or IgA is observed.

Binding Activity
Binding activity is determined using a modification of the dot blot assay of Brada and Roth.[1] In this assay a 1 mg/ml solution of human IgM is serially diluted in phosphate buffered saline, 1 μl of each dilution is then applied to nitrocellulose paper. Binding activity is defined as the minimum amount of human IgM detectable as a visible pink-red spot after a 1 hour incubation with the gold conjugate diluted to an A_{520} of 0.25.

Particle Size and Distribution
(by transmission electron microscopy; n=100)
Reported on Certificate of Analysis: Mean Particle Diameter, Standard Deviation, Coefficient of Variation

Particle Concentration[2]
Particles/ml and Particles/A_{520}/ml are reported on Certificate of Analysis.

Spectrophotometric Data
(1 cm lightpath, deionized H_2O as blank)
λmax,A_{520}, $E^{1\%}_{520}$

Clustering Data
% Singlets, % Doublets, %Triplets or greater

General Guidelines for Usage
The conjugate should be diluted for most applications, using 0.5 M NaCl, buffered at pH 6 to 8, containing 0.1% BSA, 0.05% Tween 20 and 5% fetal bovine serum to minimize background staining. For any given application, the optimum concentration of the conjugate must be determined experimentally. For most applications the final A_{520} may range from 1.0 to 0.05 (1:5-1:100 dilution) with incubation times in the range of 30 minutes to 12 hours.[3]

Storage
Store at 2-8 °C.

References
1. Brada, D. and Roth, J., Anal. Biochem., **142**, 79 (1984).
2. Ackerman, G., et al., J. Histochem., Cytochem., **31**, 433 (1983).
3. Hsu, Y-H., Anal Biochem., **142**, 221 (1984).

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