3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone (800) 325-5832 (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-Mouse IgM (μ-chain specific
Gold Conjugate, 10nm
Antibody Developed in Goat
Affinity Isolated Antigen Specific Antibody

Product No**. G5652**

Product Description

Antiserum is developed in goat using mouse IgM purified from mouse 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 mouse IgM. The affinity isolated specific antibody is conjugated to 10nm gold particles, the excess antibody is then removed.

Specificity for the μ-chain of mouse IgM is determined by Dot Blot Assay (DBA). The antibody preparation is specific for mouse IgM when tested against purified mouse IgA, IgG, and IgM.

Identity of the antibody is established by DBA, prior to conjugation using gold conjugated Goat anti-Rabbit IgG.

Reagents

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

Precautions

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.

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 mouse 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 mouse IgG detectable as a visible pink-red spot after a 1 hour incubation with the gold conjugate diluted to an A_{520} of 0.25.

Product Profile

Particle Size and Distribution
(by transmission electron microscopy; n=100)

Particle Concentration[2], Spectrophotometric Data
(1 cm lightpath, deionized H_2O as blank),Clustering Data – See Certificate of Analysis

Relative order of singlets, doublets,triplets or greater: Singlets>Doublets>Triplets.

Clustering data determined by floating the electron microscopy (EM) nickel grid on conjuate diluted 1:100 in Tris buffer, pH 8.0, containing 1% BSA, for 30-60 minutes. The grid is evaluated by EM after drying. One hundred particles are scanned to determine clustering.

General Guidelines for Usage

The conjugate should be diluted for most applications, using 0.5M 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.A., et al., J. Histochem., Cytochem., **31**, 433 (1983).
3. Hsu, Y-H., Anal Biochem., **142**, 221 (1984).

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