

Description

IgM is a 80 kDa membrane bound monomer on B cells or a 900 kDa pentamer secreted antibody. IgM is the first detectable antibody in an immune response and has roles in agglutination, opsonization, virus neutralization and complement activation.

Technical Information

Antibody: Mouse monoclonal, IgG₁
 Specificity: Bovine IgM¹
 Cross-reactivity: Not tested
 Immunogen: Bovine lymphocytes

Formulation and Storage

Purity: IgG purified by protein G affinity chromatography from serum-free cell culture supernatant.

Product Formulation: Lyophilized from a ≥ 1 mg/ml solution in 20 mM NaH₂PO₄ 0.15 M NaCl, 1.0% (w/v) mannitol, pH 7.4. Concentration determined by absorbance at 280 nm using an extinction coefficient of 1.4 ($\epsilon_{0.1\%}$).

Reconstitution: Reconstitute with deionized water.

Storage: Aliquot and store at -20°C for prolonged periods. Avoid freeze-thaw cycles. Alternatively add 0.02% (w/v) sodium azide and store at 4°C.

Country of Origin: Hybridoma country of origin- Kenya.
 Subcloned and produced- USA.

Available Formats: 0.1 mg and 0.5 mg

References

¹Naessens, J., Newson, J., Williams, D.J.L. and Lutje, V. 1988. *Immunology*. 63:569-574.

Applications

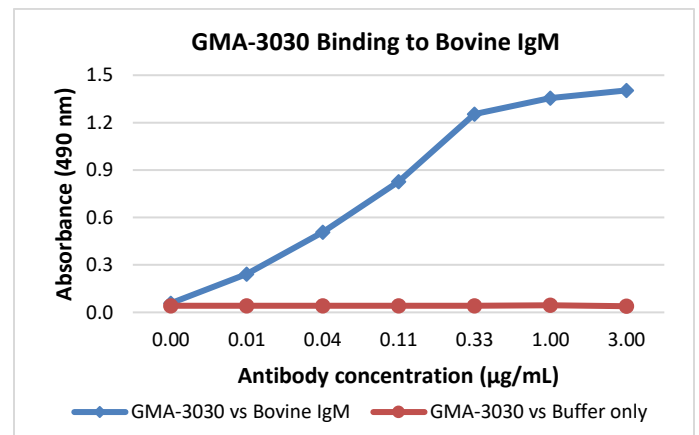
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ELISA: Recommended concentration for use in a solid-phase ELISA is 0.10 μ g/mL.

Investigator should titrate for specific application.

ELISA Data

Antibody specificity was confirmed by solid-phase ELISA.



Bovine IgM (Sigma #I8135) was coated onto an ELISA plate at a concentration of 36 μ g/mL, for a final coating concentration of 40 nM, in coating buffer, 0.2M carbonate-bicarbonate. Serial dilutions of GMA-3030 were incubated with the antigen.

A goat anti-mouse Ig horseradish peroxidase (HRP) conjugated secondary antibody was used to detect GMA-3030 bound to IgM. O-phenylenediamine dihydrochloride (OPD) was used as a substrate.

Reaction was read on a plate reader at an absorbance of 490 nm after an 8-minute development time.