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Product Information

Anti-Mouse IgA (α-chain specific)–Alkaline Phosphatase
produced in goat, affinity isolated antibody

Catalog Number **A4937**

Product Description

Anti-Mouse IgA (α-chain specific) is produced in goat using purified mouse IgA as the immunogen. Affinity isolated antibody is obtained from anti-mouse IgA antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the α-chain of mouse IgA. Anti-Mouse IgA is conjugated to alkaline phosphatase by protein cross linking with 0.2% glutaraldehyde.[1]

Specificity of Anti-Mouse IgA- Alkaline Phosphatase is determined by ELISA. The conjugate is specific for mouse IgA when tested against purified mouse IgA, IgG, and IgM myeloma proteins.

Identity and purity of the antibody is established by immunoelectrophoresis (IEP), prior to conjugation. Electrophoresis of the antibody preparation followed by diffusion versus anti-goat IgG and anti-goat whole serum results in single arcs of precipitation.

Reagents

Provided as a solution in 0.05 M Tris buffer, pH 8.0, containing 1% BSA, 1 mM $MgCl_2$, 50% glycerol, and 15 mM sodium azide as a preservative.

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.

Storage

Store at 2-8 °C.

Product Profile

Dot Blot: Minimum 1:30,000
Diluted conjugate detects up to 20 ng mouse IgA bound to nitrocellulose.

Substrate: 5-Bromo-4-chloro-3-indolyl Phosphate/Nitroblue Tetrazolium (BCIP/NBT), SIGMA*FAST*™ Tablets, Catalog Number B5655.

Direct ELISA: Minimum 1:30,000
Titer is defined as the dilution of conjugate sufficient to give a change in absorbance of 1.0 at 405 nm after 30 minutes of substrate conversion at 25 °C.[2]
Microtiter plates are coated with purified mouse IgA at a concentration of 5 μg/mL in 0.05 M carbonate-bicarbonate buffer, pH 9.6
Carbonate-Bicarbonate Buffer capsules are available as Catalog Number C3041.

Substrate: *p*-Nitrophenyl Phosphate (pNPP0, Catalog Number N2765, 1.0 mg/ml in 10% diethanolamine buffer, pH 9.8, containing 0.5 mM $MgCl_2$.

Western Blotting: Minimum 1:30,000
Mouse IgA was detected directly using 10 μg protein run under reducing conditions on an SDS-PAGE gradient (4-20%) gel. The protein was transferred to nitrocellulose, blocked with 0.5% BSA in 0.05 M Tris and then incubated with the conjugate.

Substrate: 5-Bromo-4-chloro-3-indolyl Phosphate/Nitroblue Tetrazolium (BCIP/NBT, SIGMA*FAST* Tablets, Catalog Number B5655.

Note: Working dilutions should be determined by titration assay. Due to differences in assay systems, these titers may not reflect the user's actual working dilutions.

References

1. Avarameas, V., *Immunochemistry*, **6**, 43 (1969).
2. Voller, A., et al., *Bull. World Health Organ*., **53**, 55 (1976).
3. Pluzek, K.J. and R. Ramlau, Alkaline Phosphatase Labeled Reagents, in CRC Handbook of Immunoblotting of Proteins, O.J. Bjerrum and N.H.H. Heegaard, Eds., CRC Press Inc., Boca Raton, FL, **1**, p. 177, 1988.

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