



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

Product Information

ANTI-HUMAN IgG (γ -CHAIN SPECIFIC) ALKALINE PHOSPHATASE CONJUGATE

Antibody developed in Goat
F(ab')₂ Fragment of Affinity Isolated Antigen Specific
Antibody

Product Number **A 5403**

Product Description

Anti-Human IgG is developed in goat using purified Human IgG as the immunogen. The F(ab')₂ fragment of the antibody is obtained from pepsin digested antiserum by immunospecific methods of purification. Affinity isolation removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the γ -chain of human IgG. Goat anti-Human IgG is conjugated to alkaline phosphatase by protein cross-linking with 0.2% glutaraldehyde.¹

Specificity of the alkaline phosphate conjugated anti-Human IgG is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for human IgG when tested against human IgA, IgG, IgM, Bence Jones Kappa, and Lambda 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. The antibody preparation is found to consist only of the F(ab')₂ fragment of goat IgG as determined by SDS-Polyacrylamide Gel Electrophoresis (PAGE). No contamination with goat IgG whole molecule is observed.

Reagents

The conjugate is provided as a solution in 0.05 M Tris buffer, pH 8.0, containing 1% BSA, 1 mM MgCl₂, with 0.02% sodium azide as a preservative.

Precautions and Disclaimer

Due to the sodium azide content a material safety 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.

Storage/Stability

Store at 2-8 °C. Do Not Freeze.

Product Profile

Titer: Minimum 1:1,000 (Direct ELISA)
We are now reporting lot specific information as a titer by direct ELISA rather than as a working dilution. 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 Multiwell plates are coated with purified human IgG at a concentration of 200 ng/ml in 0.1 M glycine buffer, pH 10.4, containing 1 mM magnesium chloride (MgCl₂) and 1 mM zinc chloride (ZnCl₂).

Substrate: p-nitrophenyl phosphate (pNPP, Product No. N 2765), 1.0 mg/ml in 0.1 M glycine buffer, pH 10.4, containing 1 mM MgCl₂ and 1 mM ZnCl₂.

Working dilution should be determined by titration assay. Due to product improvement and changes in the assay procedure, we now list a lot specific titer by direct ELISA for this product. Due to differences in assay systems, this titer may not reflect the user's actual working dilution.

References

1. Avrameas, V., *Immunochemistry*, **6**, 43 (1969).
2. Voller, A., et al., *Bulletin World Health Organ.*, **53**, 55 (1976).

MAM/KMR 04/02

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.