

Product Information

Anti-Goat IgG (whole molecule)–Peroxidase antibody produced in rabbit

IgG fraction of antiserum, buffered aqueous solution

Product No. **A8919**

Product Description

Antiserum is developed in rabbit using purified goat IgG as the immunogen. Whole antiserum is fractionated and then further purified by ion exchange chromatography to provide the IgG fraction of antiserum. This fraction is essentially free of other rabbit serum proteins. Rabbit anti-goat IgG is then conjugated to peroxidase by protein cross-linking with 0.2% glutaraldehyde.

Specificity of the Peroxidase Conjugated Anti-Goat IgG is determined by immunoelectrophoresis (IEP) versus normal goat serum and goat IgG.

Identity and purity of the antibody is established by immunoelectrophoresis, prior to conjugation. Electrophoresis of the antiserum followed by diffusion versus anti-rabbit IgG and anti-rabbit whole serum results in single arcs of precipitation in the gamma region.

Reagents

The conjugate is provided as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 0.05% MIT.

Storage

For continuous use, store at 2-8 °C for a maximum of one month. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. Storage in "frost-free" freezers is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

Molar Ratio (IgG:Peroxidase) = 0.8 - 1.5

Titers

1. Minimum 1:30,000 (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 450 nm after 30 minutes of substrate conversion at 25 °C.¹ Microtiter plates are coated with purified goat IgG at a concentration of 5 µg/ml in 0.05 M carbonate/bicarbonate buffer, pH 9.6 (Carbonate/Bicarbonate Buffer Capsules are available as Sigma Product No. C 3041).

Substrate: *o*-Phenylenediamine dihydrochloride (OPD, Sigma Product No. P 8287), 0.4 mg/ml in 0.05 M phosphate-citrate buffer, pH 5.0, containing 0.03% sodium perborate (Phosphate-Citrate Buffer Capsules with Sodium Perborate are available as Sigma Product No. P 4922).

2. Dot Blot
 - a. A minimum dilution of 1:2,000 was determined in a direct assay using 40 ng goat IgG/dot.
 - b. A minimum dilution of 1:2,000 was determined in an indirect assay using 20 ng/dot human IgG and Goat Anti-Human IgG (Sigma Product No. I 1011) as the primary antibody.
 - c. In an indirect chemiluminescence system using 10 ng human IgG/dot and Goat Anti-Human IgG (Sigma Product No. I 1011) as the primary antibody, this product was determined to have a dilution of minimum 1:160,000 when used as secondary antibody. Luminol plus enhancer was used as substrate.
3. Immunohistology A minimum working dilution of 1:100 was determined by indirect immunoperoxidase labeling of formalin-fixed, paraffin-embedded human tonsils using Goat Anti-Human IgG (Sigma Product No. I 1011) as the first antibody.

In order to obtain best results, it is recommended that each individual user determine the optimum working

dilution for their system by titration assay.

1. Voller, A., et al., Bulletin WHO, **53**, 55 (1976).

Reference

RC,kaa/pcs, 07/20-1