Technical Bulletin

Anti-Goat/Sheep IgG–FITC Antibody, Mouse Monoclonal

Clone GT-34, purified from hybridoma cell culture

F4891

Product Description

Monoclonal Anti-Goat IgG (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified goat IgG was used as the immunogen. The isotype is determined using ImmunoType™ Kit (Cat. No. ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO-2). The immunoglobulin fraction of the ascites fluid is conjugated to fluorescein isothiocyanate (FITC) and then further purified to remove unconjugated FITC.

Monoclonal Anti-Goat IgG, FITC Conjugate is immunospecific for goat IgG as determined by a direct immunodot binding assay. The antibody does not react with human, mouse, rat, rabbit, guinea pig, horse, or chicken IgG's.

Goat antibodies against many analytes are widely used in research as primary antibodies in various assay techniques. Second antibodies are that used to detect goat antibodies may lack specificity for goat immunoglobulins, and in many instances will also recognize other immunoglobulins that appear in the preparation being tested. This results in the need for extensive adsorption of the second antibody. Therefore, using a monoclonal antibody to goat IgG that is devoid of a binding capacity to other species can serve as a useful tool in many applications.

Reagent

Monoclonal Anti-Goat IgG, FITC Conjugate is supplied as a solution in 0.01 M phosphate buffer, pH 7.4, with 1% inactivated bovine serum albumin (BSA) and 15 mM sodium azide as a preservative.

Storage/Stability

For continuous use, store at 2-8 °C for a maximum of one month. For extended storage, 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 by centrifugation before use.

Product Profile

Protein Concentration: 1-2 mg/mL by $E2\frac{1\%}{280}$=14.0

1. By fluorescent dot immunobinding assay (F-DIBA), a minimum working antibody dilution of 1:32 is recommended using a 2-4 µg dot of goat IgG.
2. By Particle Immunofluorescence Assay (P-IFMA), a minimum working antibody dilution of 1:32 is recommended using a 50 µL suspension of Goat IgG-Agarose (Cat. No. A6159).
3. By indirect immunohistology, a minimum working antibody concentration of 35 µg/mL is recommended using a primary antibody developed in goat.

In order to obtain the best results, it is recommended that each individual user determine working dilutions by titration assay.

F/P Molar Ratio: 3-5

The F/P molar ratio is determined spectrophotometrically as follows:

$$F/P = \frac{A_{495} \times 1.4}{A_{280} - (0.36 \times A_{495}) \times 0.2} \times 0.41$$

Where:

0.2 = The extinction coefficient of bound FITC at a concentration of 1 µg per mL at pH 7.2

0.36 = The fluorochrome absorbance correction factor (non-protein absorbance).

0.41 = The factor for conversion of fluorochrome to protein ratios from weight to molar ratios.

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