

## Product Information

### ANTI-RAT IgG (WHOLE MOLECULE) FITC CONJUGATE

Antibody developed in Rabbit  
IgG Fraction of Antiserum

Product No. **F9387**

#### Product Description

Anti-Rat IgG is developed in rabbit using purified rat 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-Rat IgG is conjugated to Fluorescein Isothiocyanate (FITC) in an alkaline reaction, then further purified to remove unbound FITC.

The antiserum is determined to be immunospecific for rat IgG by immunoelectrophoresis versus normal rat serum and rat IgG, prior to conjugation.

Identity and purity of the antibody is established by immunoelectrophoresis (IEP), prior to conjugation. Electrophoresis of the antibody preparation 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 15 mM sodium azide as a preservative.

#### Precautions

Due to the sodium azide content a material safety data 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.

#### Product Profile

1. A minimum working dilution of 1:64 was determined by direct immunofluorescent labeling of rat spleen cells.
2. A minimum working dilution of 1:320 was determined by indirect immunofluorescence using formalin-fixed,

paraffin-embedded human tonsils and rat anti-human IgG as the primary antibody.

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

F/P Molar Ratio: 2.5-6.5

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

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

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.

#### ABPT

In an agar diffusion assay the conjugate produces a precipitation arc at a dilution of 1:64 versus a dilution of rat serum.

Protein Concentration = 10-20 mg/ml by absorbance at 280 nm ( $E_{280}^{1\%} = 14.0$ ).

#### Storage

For continuous use, store at 2-8 °C for up to 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.

Pcs12/99

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.