

40839 Atto 647 goat anti-rabbit IgG (whole Molecule)

Product Description

Anti-rabbit IgG (whole molecule) (Sigma, R4880) is developed in goat using purified rabbit IgG as the immunogen. Affinity isolated antigen specific antibody is purified from goat anti-rabbit IgG antiserum to remove essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to rabbit IgG.

Goat anti-rabbit is conjugated to Atto 647 NHS (Abs.max. 645 nm; Em.max. 673 nm), (Cat. No. 18373), then further purified via gel permeation chromatography and dialysis to remove unbound Atto-Dye.

Reagents

Atto 647 goat anti-rabbit IgG (whole molecule) is provided in unit sizes of 1 ml as 1 mg/ml solution in 0.1 M sodium phosphate, 0.1 M NaCl, pH 7.5, containing 5 mM sodium azide as a preservative.

Working Concentrations

It is recommended that each individual user determine the optimum working dilution empirically for their systems.

Generally concentrations of 1-10 µg /ml are sufficient for many applications.

Fluorophore / Protein (F/P) Ratio: 2 to 9 (The exact F/P ratio of each lot is mentioned on the certificate of analysis)

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

$$F / P = \frac{A_{644} \times 203,000}{[A_{280} - (A_{644} \times 0.05)] \times 150,000}$$

A_{644} = absorbance at 644 nm measured in a cuvette with a pathlength of 1 cm

A_{280} = absorbance at 280 nm both measured in a cuvette with a pathlength of 1 cm

203,000 = molar extinction coefficient (ϵ) of a IgG at 280 nm [$\text{cm}^{-1}\text{M}^{-1}$]

150,000 = molar extinction coefficient (ϵ) of the Atto 647N dye at 644 nm [$\text{cm}^{-1}\text{M}^{-1}$]

0.05 = correction factor due to the fluorophore's absorbance at 280 nm

Storage / Stability

For continuous use, store at 2-8 °C for up to three months. For extended storage, the solution may be frozen in working aliquots at -20 °C. Frozen aliquots are stable for at least six months. 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. Protect fluorescent conjugates from light.

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.

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