

50185 Atto 647 goat anti-mouse IgG (whole Molecule)

Product Description

Anti-mouse IgG (whole molecule) (Sigma, M8645) is developed in goat using purified mouse IgG as the immunogen. Affinity isolated antigen specific antibody is purified from goat anti-mouse IgG antiserum to remove essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to mouse IgG. The antibody preparation is solid phase adsorbed with human serum proteins to ensure minimal cross reactivity.

Goat anti-mouse is conjugated to Atto 647 NHS (Abs.max. 645 nm; Em.max. 673 nm), (Cat. No. 07376), then further purified via gel permeation chromatography and dialysis to remove unbound Atto-Dye.

Reagents

Atto 647 goat anti-mouse IgG (whole molecule) is provided in unit sizes of 1 ml as 1 mg/ml solutions 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:

$$F/P = \frac{A_{645} \times 203,000}{[A_{280} - (A_{645} \times 0.042)] \times 120,000}$$

A_{645} = absorbance at 645 nm measured in a cuvette with a pathlength of 1 cm

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

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

120,000 = molar extinction coefficient (ϵ) of the Atto 647 dye at 645 nm [$\text{cm}^{-1}\text{M}^{-1}$]

0.042 = 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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