

36098 Atto 488 F(ab)'2 Fragment goat anti-rabbit IgG (whole molecule)

Product Description

Antiserum is developed in goat using purified rabbit IgG as the immunogen. The F(ab)'2 fragment of the antibody is obtained from pepsin digested antiserum by immunospecific methods of purification. Affinity isolation removes essentially all goat serum proteins, including immunoglobulins which do not specifically bind to rabbit IgG.

F(ab)'2 fragment goat anti-rabbit is conjugated to Atto 488 NHS (Abs.max. 501 nm; Em.max. 523 nm), (Product 41698), then further purified via gel permeation chromatography and dialysis to remove unbound Atto-Dye.

Reagents

Atto 488 F(ab)'2 fragment goat anti-rabbit IgG (whole molecule) is provided in unit sizes of 1 ml as 1mg/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:

$$F / P = \frac{A_{501} \times 135,000}{[A_{280} - (A_{501} \times 0.101)] \times 90,000}$$

A_{501} = absorbance at 501 nm measured in a cuvette with a path length of 1 cm

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

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

90,000 = molar extinction coefficient (ϵ) of the Atto 488 dye at 501 nm [$\text{cm}^{-1}\text{M}^{-1}$]

0.101 = 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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