

56767 Atto 610 Streptavidin

Application

Atto 610 is a new label with high molecular absorption (150.000) and quantum yield (0.70) as well as sufficient stoke's shift (absorption maximum 615 nm, emission maximum 634 nm). Atto 610 has been coupled to streptavidin to enable all kinds of assays based on the specific affinity of biotin to streptavidin. Streptavidin conjugates are used as secondary detection reagents in histochemical applications, flow cytometry, microarrays, blot analysis and immunoassays.

Product Description

Streptavidin:
 MW 60.000
 Source Streptomyces avidinii, non recombinant
 Activity 13 Units/mg protein
 Dye content 1.8 mol/mol streptavidin

Label:
 ϵ 150.000 M⁻¹cm⁻¹
 η_{fl} 70% (water)
 τ 3.3 ns (water)

Appearance: Dark blue solid, lyophilized in PBS
 Reconstitution: Clear blue, dissolved in 1 ml deionised water
 Quantity 1 mg

Streptavidin conjugation of Atto 610 does not significantly change the labels spectral data regarding excitation and emission maxima. Given the optimised Dye/Protein-ratio molar absorbance and quantum yields remain high within application. Conjugates of our Atto dyes generally do not show strong fluorescence in unbound state, but fluorescence is boosted again as soon as they are bound to biotin. This may help overcome problems by unspecific binding which may sometimes appear with streptavidin based assays in special cases.

Absorption and fluorescence emission of Atto 610 in water of pH 7.0

