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ProductInformation

ExtrAvidin®-Cy3 Conjugate

Product Number **E 4142**

Product Description

ExtrAvidin® is a modified form of egg white avidin. It is a tetrameric protein containing four high affinity binding sites for biotin. ExtrAvidin® combines the high specific activity of avidin with the low background staining of streptavidin, a biotin binding protein produced by the bacteria *Streptomyces avidinii*. ExtrAvidin is covalently conjugated to Cy3 dye.[1]

Reagents

The conjugate is provided as a solution at 1 mg/ml in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA and 15mM sodium azide as preservative.

Precautions and Disclaimer

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.

Storage/Stability

Store at 2-8 °C.

Product Profile

The conjugate is reactive with antiserum to avidin by immunoelectrophoresis (IEP).

The ExtrAvidin-Cy3 conjugate may be used with biotinylated reagents in avidin/biotin labeling systems in immunohistochemistry and immunocytochemistry.

Spectral Characteristics of Cy3 Dye

Absorbance Max	552nm
Emission Max	565nm
Molar Extinction Coefficient	$1.3 \times 10^{-5} M^{-1} cm^{-1}$

F/P Molar Ratio: 3 to 9

The F/P molar ratio of the ExtrAvidin-Cy3 conjugate is determined spectrophotometrically as follows:

$$F = A_{552} / 1.3 \times 10^5$$

$$P = \frac{A_{280} - (A_{552} \times 0.05)}{8.7 \times 10^4}$$

$$\text{F/P Molar Ratio} = F/P$$

Where:
1.3×10^5=Molar extinction coefficient of Cy3.
8.7×10^4=Molar extinction coefficient of ExtrAvidin.
0.05=Correction factor for Cy3 absorbance at 280nm.

Working Dilution: Minimum 1:100
The working dilution was determined by indirect labeling of formalin-fixed, paraffin-embedded human tonsil. A rhodamine filter set may be used in fluorescence microscopy. For double labeling experiments with fluorescein, a narrow band pass filter is recommended due to the emission overlap.

In order to obtain best results in different preparations and techniques, it is recommended that each individual user determine their optimum working dilution by titration assay.

References

1. Bayer, E. A. , et al., Methods Enzymol., **62**, 308 (1979).
2. Southwick, P. L. , et al., Cytometry, **11**, 418 (1990).

JWM/DAA 11/2002