

Col-F



CATALOG #6346
RESEARCH USE ONLY

INTRODUCTION

Collagens and elastins are primarily synthesized by fibroblasts. These molecules are principal components of extracellular matrices. Once outside the cell, collagen assembles into fibrils and fibers that provide mechanical strength to tissues. Elastin is secreted by cells, and also forms fibers which crosslink to create a flexible network of fibers and sheets.

Col-F is a low molecular weight fluorescent probe that exhibits affinity for collagen and elastin. Col-F easily penetrates between cells and into tissues where it can then bind to collagen and elastin fibers via a noncovalent mechanism.

Each vial contains 0.5 mg of dry powder Col-F. Once reconstituted in DMSO, Col-F is ready to use: just add it to the sample media, incubate, and analyze. The optimal excitation is 490 nm and emission is 515-520 nm. Col-F is revealed under a microscope using a FITC-compatible filter set. Col-F is for research use only. Not for use in diagnostic procedures.

SAFETY

- See Safety Data Sheet (SDS) for any warnings.
- SDS available at www.immunochemistry.com and by calling ICT at 952-888-8788 or 800-829-3194.
- For research use only.
- Not for use in diagnostic procedures.

SPECIFICATIONS

- 0.5 mg per vial
- MW: 735.83 g/mol

STORAGE

- $\leq -20^{\circ}\text{C}$
- Protect from light.

*Thank you for using Col-F!
If you have any questions, or
would like to share your data,
please contact us at
help@immunochemistry.com.*



HOW TO USE

Col-F is supplied as a lyophilized powder. Typical staining concentrations range between 1-20 μM . However, the optimal staining concentration will vary for different situations. The optimal staining concentration will need to be determined experimentally by the end user. The ideal staining time varies depending on application, and can range from 5-10 minutes to several hours. Optimal staining times or periods will need to be determined experimentally by the user. ICT recommends staining for 30 minutes as a starting point. To stain collagen and elastin:

1. When ready to use, reconstitute the 0.5 mg vial by adding 100 μL DMSO. This creates a stock at 6.8 mM.
2. Add Col-F to the sample media. For example, if using 20 μM staining concentration, dilute the 6.8 mM stock 1:340 into the sample.
3. Incubate 30 minutes at room temperature. Longer or shorter incubation periods may be required depending on the application and sample type.
4. Visualize with a fluorescence microscope or fluorescence plate reader capable of excitation at 490 nm, and emission at 515-520 nm.

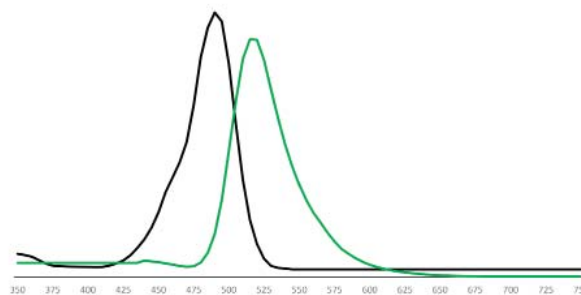


Figure 1. Col-F Excitation (black line) and Emission (green line) Spectra.

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