

Biotin-4-fluorescein *CAS 1032732-74-3*

Catalog number: 3006

Unit size: 5 mg

Component	Storage	Amount
Biotin-4-fluorescein *CAS 1032732-74-3*	Freeze (<-15 °C), Dessicated, Minimize light exposure	5 mg

OVERVIEW

This bifunctional biotin-fluorescein conjugate demonstrates better binding and stronger fluorescence than biotin fluorescein. It has similar avidin-binding properties in terms of high affinity, fast association, and non-cooperative binding to avidin and streptavidin tetramers. These exceptional properties are attributed to the small size/length of the new ligand since all larger/longer biotin derivatives are known for their mutual steric hindrance and anti-cooperative binding in 4:1 complexes with avidin and streptavidin tetramers. Specific binding of this biotin-fluorescein conjugate towards avidin and streptavidin is accompanied by 84-88% quenching of ligand fluorescence. It is used for the quantitation of biotin-binding sites. Both the fluorescence and absorbance of biotin-4-fluorescein are quenched upon binding to one of the four biotin-binding sites of streptavidin, avidin, or the streptavidin conjugates of fluorescent dyes or enzymes. As a result, when a known concentration of biotin-4-fluorescein is added to a known amount of streptavidin, one can estimate the number of biotin-binding sites.

AT A GLANCE

Important It is important to store at <-15 °C and should be stored in cool, dark place.

It can be used within 12 months from the date of receipt.

KEY PARAMETERS

Instrument:	Fluorescence microplate reader
Excitation:	492 nm
Emission:	518 nm
Cutoff:	500 nm
Recommended plate:	Solid black

PREPARATION OF WORKING SOLUTION

Biotin-4-fluorescein working solution:

Add appropriate amount of DMSO to make Biotin-4-fluorescein working solution.

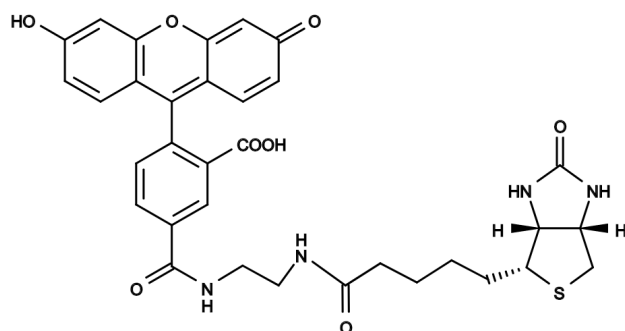
EXAMPLE DATA ANALYSIS AND FIGURES


Figure 1. Chemical structure for Biotin-4-fluorescein *CAS 1032732-74-3*