

Biotin Colorimetric Quantitation Kit

Cat. No. Kit-2083 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Size 200 Tests

Description

The avidin/streptavidin-biotin interaction is the strongest known non-covalent biological interaction ($K_d = 10^{-15} \text{ M}^{-1}$) between a protein and its ligand. One avidin binds four biotins. The bond formation between biotin and avidin/streptavidin is very rapid and, once formed, is unaffected by pH, organic solvents and other denaturing agents. The tight and specific binding of biotin and its derivatives to various avidins has been extensively explored for a number of biological applications. Our Colorimetric Biotin Quantitation Kit provides a convenient method for estimating the molar ratio of biotin to protein in biotin-protein conjugates or for quantitating biotin concentration in a solution. The assay uses HABA (4"-hydroxyazobenzene-2-carboxylic acid), a reagent that shows dramatic spectral changes when bound to avidin. Biotin easily displaces HABA from the HABA/Avidin complex, resulting in a decrease of absorption at 500 nm. The kit provides an optimal ratio of Avidin and HABA, and it is best used to determine biotin concentration in the range from 2 to 16 μM . The assay can be performed in a cuvette or microplate format.

Storage Keep at $< -15^\circ\text{C}$

Kit Components Component A: Avidin 1 vial Component B: HABA assay buffer 40 mL Component C: d-biotin 100 μM , 200 μL

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