



Cellulose Content Assay Kit

Product Information

Product Overview

Significance of Measurement: Nitrate reductase (NR) is a key enzyme in nitrogen assimilation in plants and microorganisms. It catalyzes the first and rate-limiting step of nitrate metabolism by reducing nitrate (NO_3^-) to nitrite (NO_2^-). NR activity reflects nitrogen utilization efficiency and is closely related to plant growth, development, and stress responses.

Principle of Measurement: NR catalyzes the reduction of nitrate to nitrite using NADH or NADPH as an electron donor. The generated nitrite reacts with chromogenic reagents to form a red-colored compound, which exhibits a characteristic absorbance at 540 nm. NR activity is determined by measuring absorbance at this wavelength.

Size

100t/96s

Storage

Store at 2–8 °C. Shelf life: 6 months.

Detection method Spectrophotometer/Microplate Reader

Materials Required but Not Supplied

UV–visible spectrophotometer or microplate reader, refrigerated centrifuge, water bath, adjustable pipettes, quartz cuvettes or 96-well plates, mortar, ice, and distilled water.
