



## Cellulose Content Assay Kit

### Product Information

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#### Product Overview

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**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 ( $\text{NO}_3^-$ ) to nitrite ( $\text{NO}_2^-$ ). 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.

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#### Size

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100t/96s

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#### Storage

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

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**Detection method** Spectrophotometer/Microplate Reader

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#### Materials Required but Not Supplied

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

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