

Calcium Colorimetric Detection Kit

Cat. No. Kit-0140 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Calcium Detection Kit (Colorimetric) provides a simple assay to determine calcium concentration within the physiological range of 0.4-100 mg/dL (0.1-25 mM). A chromogenic complex is formed between calcium ions and O-cresolphthalein and measured at OD575 nm. This product detects free calcium ions only.
Size	250 tests
Description	Calcium is essential for all living organisms, where Ca^{2+} sequestration and release into and out of the cytoplasm functions as a signal for many cellular processes. 99% of calcium is found in bones and teeth with the remaining 1% found in the blood and soft tissue. Serum calcium levels are tightly controlled (8.4-11.4 mg/dL) and any variation outside this range can have serious effects. Calcium plays a role in mediating the constriction and relaxation of blood vessels, nerve impulse transmission, muscle contraction, and hormone secretion. Calcium ion channels control the migration of calcium ions across cell membranes, permitting the activation and inhibition of a wide variety of enzymes. Causes of low calcium levels include chronic kidney failure, vitamin D deficiency, and low blood magnesium levels that can occur in severe alcoholism.
Applications	Functional Studies more details
Target Species	Reacts with: Cat, Human; Predicted to work with: all Mammals
Storage	Store at +4°C.

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Kit Components	Components: Identifier; Calcium Assay Buffer: NM; Calcium Standard: Yellow; Chromogenic Reagent: NM
Compatible Sample Types	Urine, Serum, Plasma, Other biological fluids, Tissue Extracts, Cell Lysate, Cell culture media
Assay time	0h 20m
Sensitivity	>0.1 mM

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