

Calcium Red Fluorescence Assay Kit

Cat. No. Kit-0139 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Calcium Assay Kit (Red Fluorescence) is used for the measurement of calcium level in physiology solutions.
Description	Calcium is essential for all living organisms, particularly in cell physiology, where movement of the calcium ion Ca^{2+} into and out of the cytoplasm functions as a signal for many cellular processes. Calcium is the fifth most abundant element by mass in the human body, where it is a common cellular ionic messenger with many functions, and also serves as a structural element in bone. Calcium plays an important role in mediating the constriction and relaxation of blood vessels, nerve impulse transmission, muscle contraction, and hormone secretion. The serum level of calcium is closely regulated within a fairly limited range (9 to 10.5 mg/dL) in the human body. Both hypocalcemia and hypercalcemia are serious medical disorders. Causes of low calcium levels include chronic kidney failure, vitamin D deficiency, and low blood magnesium levels.
Usage	For research use only (RUO)
Storage	Keep in -20°C Protect from moisture and lightAvoid repeated freeze-thaw cycles
Kit Components	Component A: Rhod Red Indicator (light sensitive) 2 vial Component B: Assay Buffer 10 ml Component C: 300 mM Calcium Standard 0.5 ml
Detection method	Fluorometric
Compatible Sample	Physiological Solutions

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Types**Features & Benefits**

Sensitive: Detect as low as 10 μ M calcium in solution. Continuous: Easily adapted to automation without a separation step. Convenient: Formulated to have minimal hands-on time. No interference with magnesium. Non-Radioactive: No special requirements for waste treatment.

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