

General Serum Calcium Assay Kit

Serum Calcium Microplate Assay Kit

CATALOG # AAA261587	REACTIVITY General	APPLICATIONS Functional Assay
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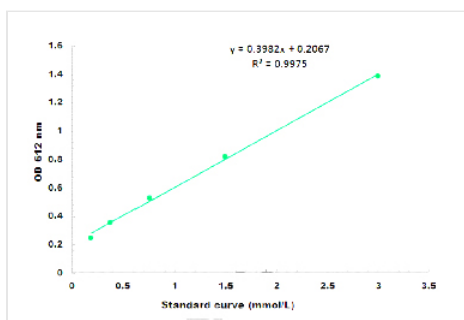
PRODUCT SYNONYMS

Serum Calcium; Serum Calcium Microplate Assay Kit; Calcium; Ca; Serum Calcium assay kit

PRODUCT SPECIFICATIONS

Reactivity	General
Samples	Serum, urine, saliva and other biological fluids samples
Detection Range	0.1 mmol/L - 3 mmol/L
Applicable Applications for Serum Calcium assay kit	FA (Functional Assay)
Preparation and Storage	Shipped and store at 4 degree C for 6 months.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Serum Calcium assay kit

Background/Introduction: 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. In humans, when the blood plasma ionized calcium level rises above its set point, the thyroid gland releases calcitonin, causing the plasma ionized calcium level to return to normal. When it falls below that set point, the parathyroid glands release parathyroid hormone (PTH), causing the plasma calcium level to rise. The calcium ions can react with MTB. The products can be measured at a colorimetric readout at 612 nm.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

