

Fura-2 No Wash Calcium Assay Kit

Cat. No. Kit-0346 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Fura-2 No Wash Calcium Assay Kit is a ratiometric calcium assay that allows homogeneous measurement of intracellular calcium mobilization caused by activation of G-protein-coupled receptors (GPCR) or calcium channels. Cells expressing a GPCR of interest that signals through calcium are pre-loaded with Fura-2 AM which can cross cell membrane. Once inside the cell, the lipophilic blocking groups of Fura-2 AM are cleaved by esterases, resulting in a negatively charged fluorescent dye that stays inside cells and its fluorescence wavelength is blue-shifted upon binding to calcium. When cells are stimulated with agonists, the receptor signals the release of intracellular calcium, which greatly increase the fluorescence intensity of Fura-2 at the short wavelength. The characteristics of its ratio measurements reduce the effects of uneven dye loading and cell numbers, dye leakage and photo bleaching. The 340/380 nm excitation ratio allows accurate measurements of the intracellular Ca^{2+} concentration and makes this kit an ideal tool for more accurate measurement of cellular calcium concentration compared to Fluo-8 of the single wavelength. The kit provides an optimized assay method with no washing step for monitoring the G-protein-coupled receptors and calcium channels using HTS instrumentation. The assay can be performed in a convenient 96-well or 384-well microtiter-plate format.

Size

10 x 96 tests

Description

This product is intended to be used for monitoring calcium fluctuations in vivo in live cells using the following HTS imaging plate readers: FLIPR, FDSS, BMG NOVOstar, FLEXStation, ViewLux, IN Cell Analyzer or Arrayscan.

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Applications	Functional Studies more details
Target Species	Reacts with: Human, Chinese Hamster; Predicted to work with: all Mammals
Storage	Store at -20°C.
Kit Components	Components: Identifier; 10X Pluronic F127 Plus; Fura-2 AM; HHBS
Detection method	Fluorescent
Compatible Sample Types	Adherent cells, Suspension cells

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