

Calcein Red-AM

Catalog# / Size	425205 / 10 x 25 µg
Regulatory Status	RUO
Other Names	Calcein, Calcien Red-AM
Description	Calcein Red-AM is a fluorogenic, cell-permeant fluorescent probe that indicates cellular health by detecting the activity of nonspecific esterases. When the acetoxymethyl ester is intact the probe is non-fluorescent, but when it is cleaved by nonspecific esterases present in healthy cells, the probe can be excited and emit at 560 nm/574 nm respectively. The signal of Calcein Red-AM is proportional to the cell vitality, as esterase activity decreases in cells with poor vitality. This cell-permeant probe is not retained with fixation and permeabilization.

Product Details

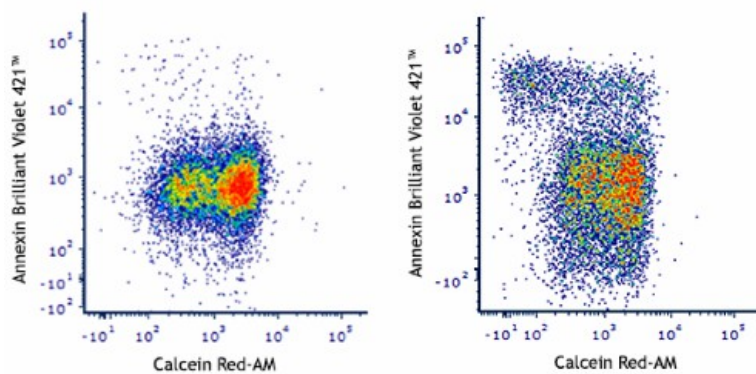
Formulation	Lyophilized
Preparation	Calcein Red-AM labeling kit consists of lyophilized Calcein Red-AM and anhydrous DMSO. For reconstitution, bring the kit to room temperature and add 25 µL of DMSO to one vial of Calcein Red-AM dye until fully dissolved.
Storage & Handling	Calcein Red-AM should be stored at -20°C upon receipt. Do not open vials until needed. Once the DMSO is added to the Calcein Red-AM, use immediately or store at -20°C in a dry place and protected from light, preferably in a desiccator or in a container with desiccant for no more than a month.
Application	FC - Quality tested Live cell imaging - Verified
Recommended Usage	This lot has been tested by flow cytometric analysis of cell vitality. It can be used at concentrations ranging from 0.025 – 0.006 µM for cell labeling. It is recommended that the reagent be titrated for optimal performance for each cell type, culturing condition, or application.
Application Notes	<p>The molecular weight of Calcein Red-AM is 1015.79 Da. The maximum excitation and emission wavelengths of Calcein Red-AM are 560 nm/574 nm, respectively. Each 25 µg of Calcein-AM may be reconstituted with 25 µL of anhydrous DMSO to yield a stock concentration of 1 mM.</p> <p>Materials Provided: 10 vials x 25 µg Calcein Red-AM 1 vial of 500 µL anhydrous DMSO</p> <p>Calcein-AM Labeling Procedure:</p> <ol style="list-style-type: none">1. Prior to reconstitution, spin down the vial of lyophilized reagent in a microcentrifuge to ensure the reagent is at the bottom of the vial.2. Prepare a 1 mM stock solution by reconstituting 1 vial of lyophilized Calcein Red-AM dye with 25 µL of anhydrous DMSO.3. Prepare a 1 µM working solution by diluting 1 µL of 1 mM Calcein Red-AM stock solution in 1 mL PBS.4. Spin down cells and adjust the cell suspension to 1x10⁷ cells/mL in PBS.5. Add 6 µL of the 1 µM Calcein Red-AM working solution to each mL of cell suspension for a final concentration of 0.006 µM.6. Incubate cells for 30 minutes at room temperature or at 37°C and keep protected from light.7. Pellet cells and resuspend in pre-warmed cell culture medium.8. Incubate cells for 10 minutes to ensure optimal retention of the Calcein Red-AM.9. After incubation, Calcein Red-AM labeled cells are ready for downstream applications or analysis.

Antigen Details

Structure	Acetoxymethyl ester
Distribution	Cytoplasmic

Function	Cell vitality and health probe. Shows the pathway to death in more detail.
Interaction	Nonspecific esterases
Gene ID	NA

Product Data



Non-treated Jurkats (left) or treated Jurkats (right) that have been stimulated with BioLegend's anti-human CD95 (EOS9.1) for four hours were then stained with 0.006 μ M Calcein Red-AM and 5 μ L of Annexin Brilliant Violet 421™ (targets and identifies apoptotic cells).

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