



FluoForte™ Reagent

Cat. No. ENZ-52015

Lot No. Specified on the product label

Exp. One year from date of receipt

MW: ~1000
Wavelength Maxima: Excitation 490 nm
Emission 514 nm
Quantity: 1 mg
Purity: >95% by HPLC
Appearance: Orange solid
Solvent: DMSO

Description:

The calcium ion is an important second messenger involved in many physiological and signal transduction processes within cells. Fluorescent probes that show spectral responses upon binding calcium have enabled researchers to investigate changes in intracellular free Ca²⁺ concentrations by using fluorescence microscopy, flow cytometry, fluorescence spectroscopy and fluorescence microplate readers. Fluo-3, Fluo-4 and Calcium 4 dyes are widely used calcium ion indicators for in-cell measurement of agonist-stimulated and antagonist-inhibited calcium signaling in high-throughput screening applications. However their relatively weak fluorescence signals have limited their application in some challenging cell lines and with certain membrane receptors.

Enzo Life Sciences' FluoForte™ Reagent is a fluorescent calcium indicator dye developed to improve cell loading and calcium response while maintaining the convenient Fluo-3, Fluo-4 and Calcium 4 spectral wavelength of maximum excitation at ~490 nm and maximum emission at ~520 nm. Relative to the cited dyes, FluoForte™ dye yields the brightest signal and largest assay window. We offer both 1 mg (Cat. No. ENZ-52015) and 5 x 50 µg (Cat. No. ENZ-52014) packages to meet the researchers' needs.

Procedure:

The lyophilized powder (1 mg) should be reconstituted in 200 µl DMSO solution. 10 µl of reconstituted FluoForte™ reagent is enough for the assay of calcium mobilization in one 96-well or one 384-well plate. Un-used, reconstituted FluoForte™ reagent can be aliquoted and stored at ≤ -20°C for at least one month if the tubes are sealed tightly, avoiding light and repeated freeze-thaw cycles. To prepare the dye Loading Buffer, please follow instructions in manual (pg. 4) for ENZ-51017. If your cells require probenecid, prepare the Loading Buffer with a final in-well working concentration of 2.5mM probenecid. Always prepare fresh probenecid on the day of the experiment.

Quality Control:

Reversed phase HPLC is used as a quality control to ensure chemical purity >95%.

Shipping Conditions:

Ambient

Stability and Storage Conditions:

After receipt, this product should be stored desiccated and protected from light at ≤ -20°C. The FluoForte™ Reagent is susceptible to hydrolysis (particularly in solution) and should be reconstituted in anhydrous DMSO, then used as soon as possible thereafter to avoid decomposition with subsequent loss of cell loading capacity. DMSO stock solutions of the reagent should be stored protected from light, frozen, and desiccated.

Contact and Support:

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Notice to Purchaser:

The FluoForte™ Reagent is a member of the CELLestial™ product line, reagents and assay kits comprising fluorescent molecular probes that have been extensively benchmarked for live cell analysis applications. CELLestial™ reagents and kits are optimal for use in demanding imaging applications, such as confocal microscopy, flow cytometry and HCS, where consistency and reproducibility are required.

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