

GFP-CERTIFIED®

FLUOFORTE®

Calcium assay kit

A brighter, more robust and GFP-compatible (orange dye) fluorescent assay for calcium mobilization

Enzo Life Sciences' GFP-CERTIFIED® FLUOFORTE® Calcium Assay Kit (high-throughput) provides a homogeneous fluorescence-based assay for detecting intracellular calcium mobilization across a broad spectrum of biological targets. Relative to other commercially available dyes, the GFP-CERTIFIED® FLUOFORTE® dye is the brightest and most sensitive fluorescent calcium indicator. The kit provides a homogeneous mix-and-read, no-wash calcium mobilization assay. The homogeneous cell-based assay for calcium offers fewer steps, lower variability and an easier protocol for adherent and non-adherent cell lines. In addition, it requires neither a washing step, nor exogenous addition of a quencher dye, which could adversely effect receptor-ligand interaction kinetics.

Citations: 19

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Ordering Information

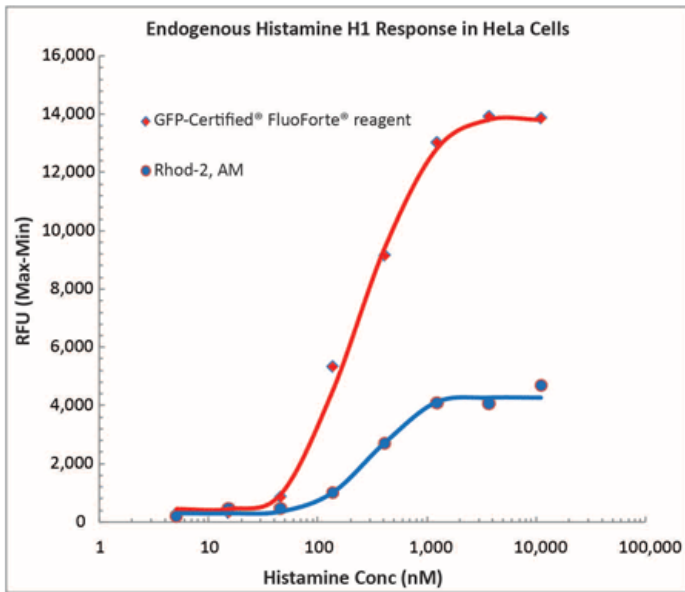
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ENZ-51020-KP010	10x96 wells
ENZ-51020-KP100	100x96 wells

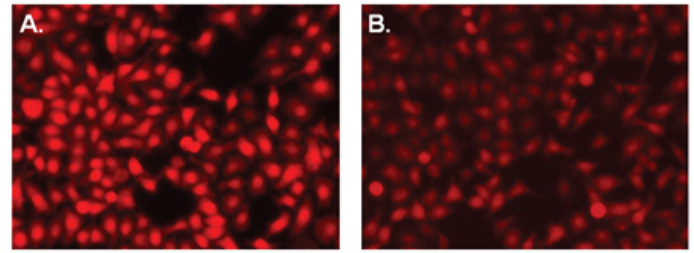
Manuals, SDS & CofA

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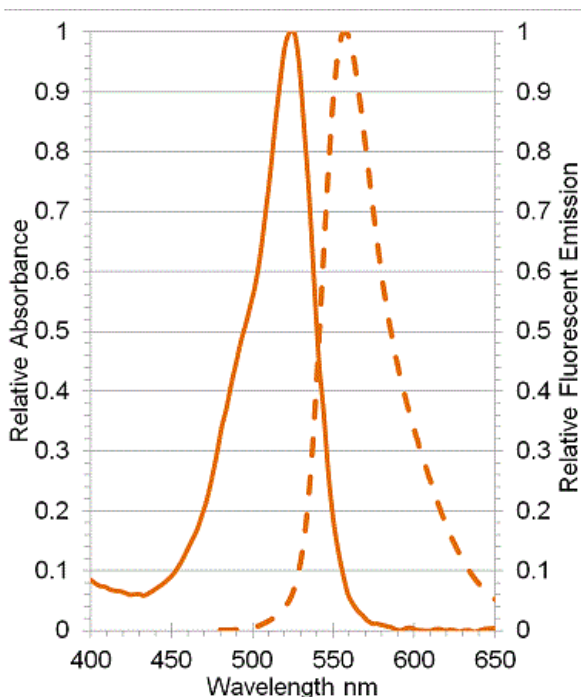
- Monitor calcium mobilization in GFP-expressing cell lines
- The brightest and most sensitive red-shifted fluorescent Ca^{2+} indicator
- Provides comparable EC50 and IC50 values as obtained using Rhod-4 AM and Fluo-4 AM
- Larger assay window and higher Z' factor values, allowing measurements of challenging cell lines and receptors



Histamine H1 receptors: HeLa cells were seeded overnight at 40,000 cells per 100 μ L per well in a 96-well black wall/clear bottom microplate. The cells were incubated with 100 μ L of GFP-CERTIFIED® FLUOFORTE® reagent or Rhod-2 AM dye for 1 hour at 37°C. Histamine (20 μ L/well) was added using a BioTek two-syringe pump dispenser to achieve the final indicated concentrations. No significant difference in EC50 of Histamine for GFP-CERTIFIED® FLUOFORTE® and Rhod2-AM dye was observed. GFP-CERTIFIED® FLUOFORTE® reagent generated higher intensity signal and a larger assay window.



U-2 OS cells were incubated with (A) GFP-CERTIFIED® FLUOFORTE® AM dye or (B) Rhod-2 AM dye. Cells were washed and treated with a final concentration of 100nM ATP and imaged immediately. GFP-CERTIFIED® FLUOFORTE® AM dye exhibits brighter fluorescence intensity than Rhod-2 AM.



Handling & Storage

Handling	Protect from light. Avoid freeze/thaw cycles.
Short Term Storage	-20°C
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Application	Flow Cytometry, Fluorescence microscopy, Fluorescent detection, HTS
Application Notes	The GFP-CERTIFIED® FLUOFORTE® Calcium Assay kit provides a homogeneous fluorescence-based assay for detecting intracellular calcium mobilization across a broad spectrum of biological targets.
Contents	<p>Starter pack (Prod. No. ENZ-51020-KP010):</p> <p>Reagent A (lyophilized GFP-CERTIFIED® FLUOFORTE® dye), 1 vial</p> <p>Reagent B (dye efflux inhibitor), 10ml</p> <p>Reagent C (Hanks' buffer with 20mM HEPES, 100ml)</p> <p>Sufficient for 10 x 96-well plates</p> <p>High-throughput (Prod. No. ENZ-51020-KP100):</p> <p>Reagent A (lyophilized GFP-CERTIFIED® FLUOFORTE® dye), 10 vials</p> <p>Reagent B (dye efflux inhibitor), 10 x 10ml</p> <p>Sufficient for 100 x 96-well plates</p>
Quality Control	% purity of Reagent A (GFP-CERTIFIED® FLUOFORTE® dye) by HPLC is ≥95%.
Quantity	ENZ-51020-KP010: for 10 x 96-well plates ENZ-51020-KP100: for 100 x 96-well plates

The GFP-CERTIFIED® FLUOFORTE® Calcium assay kit 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 cell analysis applications involving confocal microscopy, flow cytometry, microplate readers and HCS/HTS, where consistency and reproducibility are required.

Last modified: May 29, 2024



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