Protonex™ Red 600

Catalog number: 21207
Unit size: 1 mg

Component	Storage	Amount (Cat No. 21207)
Protonex™ Red 600	Freeze (< -15 °C), Minimize light exposure	1 vial (1 mg)

OVERVIEW

Protonex™ Red dye demonstrated pH-dependent fluorescence. Unlike most of the existing fluorescent dyes that are more fluorescent at higher pH, acidic conditions enhance the fluorescence of Protonex™ Red dye. The fluorescence of Protonex™ Red dye dramatically increases as pH decreases from neutral to the acidic. The weak fluorescence outside the cell may potentially eliminates the wash steps. Protonex™ Red dye provides a powerful tool to monitor acidic cell compartments such as endosomes and lysosomes. Protonex™ Red dye is weakly fluorescent outside the cells, but its fluorescence is significantly enhanced in acidic compartments (such as phagosomes, lysosomes and endosomes). This Protonex™ Red enables the specific detection of cellular acidic compartments with reduced signal variability and improved accuracy for imaging or flow applications. It can be also used for multiplexing cellular functional analysis with green dyes such as GFP, Fluo-8®, calcein, or FITC-labeled antibodies. Protonex™ Red has the spectral properties similar to those of Texas Red, making the common filter set of Texas Red readily available to the assays of Protonex™ Red.

AT A GLANCE

Important Note

Keep at -20 °C and desiccated. Avoid exposure to light.

SAMPLE EXPERIMENTAL PROTOCOL

This protocol only provides a guideline, and should be modified according to your specific needs. Treat cells as desired before making the Protonex™ working solution.

1. Prepare a 1 to 10 mM Protonex™stock solution in DMSO. Make 0.1 to 10 µM working solution by diluting the DMSO stock solution into Hanks solution with 20 mM Hepes buffer (HHBS) or buffer of your choice.
2. Treat cells as desired.
3. Incubate the cells with Protonex™ working solution for 15min to 2 hours at 37 °C.
4. Replace the dye-loading solution with HHBS buffer.
5. Analyze the cells with a proper fluorescence instrument fitted with the correct filter set.

EXAMPLE DATA ANALYSIS AND FIGURES

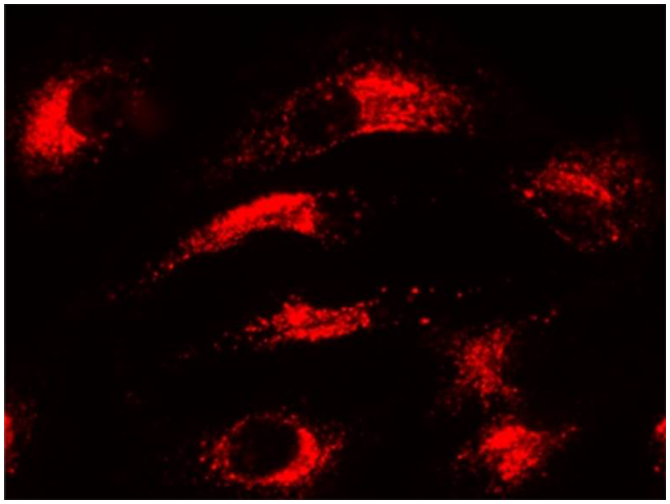

Figure 1. Image of Live HeLa Cells Stained with Protonex™ Red 600. Live HeLa cells were seeded in a 96-well plate and cultured overnight. Following the removal of the growth medium, the cells were washed with Hanks' Balanced Salt Solution (HBSS) and subsequently stained with 0.6 µM Protonex™ Red 600 for 30 minutes at 37°C. After staining, the cells were washed again with HBSS and imaged using fluorescence microscopy with a TRITC filter.

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