Protonex™ Blue 450 NHS ester

Catalog Number: 21917
Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	436.46
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	362 nm
Emission Wavelength	452 nm

Applications

Protonex™ Blue 450 NHS ester is an amine-reactive pH probe that can be readily conjugated to a variety of biological targets via their primary amino groups. Protonex™ Blue 450 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™ Blue 450 dye. The fluorescence of Protonex™ Blue 450 dye increases as pH decreases from neutral to the acidic. The weak fluorescence outside the cell may potentially eliminate the wash steps. Protonex™ Blue 450 dye provides a powerful tool to monitor acidic cell compartments such as endosomes and lysosomes. Protonex™ Blue 450 dye is weakly fluorescent outside the cells, but its fluorescence is significantly enhanced in acidic compartments (such as phagosomes, lysosomes and endosomes). Protonex™ Blue 450 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.