Protonex™ Red 670, NHS ester

Catalog Number: 21183
Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid dark blue
Molecular Weight	827.02
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	643 nm
Emission Wavelength	660 nm

Applications

Protonex™ Red 670 NHS ester is an excellent building block for developing a target-specific conjugate that can be used for monitoring a pH-sensitive biological event. Protonex™ Red 670 dye works by changing its fluorescence intensity depending on the pH of the environment. Protonex™ Red 670 is minimally fluorescent at a basic pH and maximally fluorescent at an acidic pH. When Protonex™ Red 670 is bound to a receptor or an antibody on the cell surface, it is essentially non-fluorescent because the extracellular pH is neutral. However, when the receptor or antibody is internalized into the cell in response to a stimulus, it enters the endosomal pathway, where the pH is acidic. This causes Protonex™ Red 670 to become highly fluorescent and emit red light when excited by a red laser such as a 632 nm He-Ne or 647 nm red laser. By measuring the fluorescence intensity of Protonex™ Red 670, one can monitor the activation and trafficking of receptors or antibodies in live cells.

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