

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
Molecular Weight	827.02
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

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.