

Protonex™ Red 780, NHS ester

Catalog Number: 21187

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	853.06
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	748 nm
Emission Wavelength	769 nm

Applications

Protonex™ Red 780 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 780 dye works by changing its fluorescence intensity depending on the pH of the environment. Protonex™ Red 780 is minimally fluorescent at a basic pH and maximally fluorescent at an acidic pH. When Protonex™ Red 780 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 780 to become highly fluorescent and emit near-infrared light when excited by a red laser. By measuring the fluorescence intensity of Protonex™ Red 780, one can monitor the activation and trafficking of receptors or antibodies in live cells.