

Phen Green™ SK, Diacetate

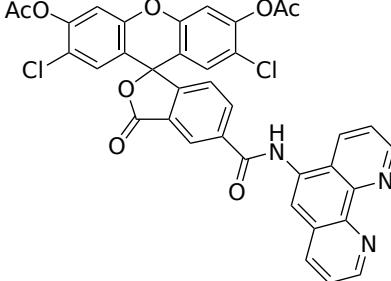
Catalog Number: 21264

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	706.49
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Phen Green™ SK, Diacetate is a cell-permeable, fluorogenic chelator designed for the sensitive detection of intracellular transition and heavy metal ions in live-cell applications. Upon cellular uptake, cytosolic esterases efficiently hydrolyze the diacetate protecting groups, yielding the highly fluorescent, metal-sensitive Phen Green™ SK dye. The activated probe exhibits excitation and emission maxima at approximately 507 nm and 532 nm, respectively, and undergoes fluorescence quenching in the presence of a broad range of divalent and monovalent metal ions, including Fe^{2+} , Cu^{2+} , Cu^{+} , Zn^{2+} , Cd^{2+} , Ni^{2+} , Co^{2+} , Hg^{2+} , and Pb^{2+} .

This metal-induced quenching mechanism allows for direct, concentration-dependent monitoring of labile metal pools within the cytosol. Phen Green™ SK, Diacetate is well-suited for use in both fluorescence microscopy and high-throughput microplate assays, offering flexibility across experimental platforms. Its broad metal ion reactivity and robust signal response make it a powerful tool for investigating intracellular metal ion dynamics, redox regulation, metal transport mechanisms, and metal-associated cytotoxicity in diverse biological systems.