

Acridinium Amine

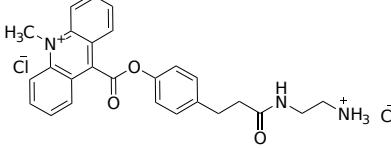
Catalog Number: 26017

Unit Size: 1 mg

Product Details

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

Chemical Properties

Appearance	Solid yellow-brown
Molecular Weight	500.42
Soluble In	DMSO
Chemical Structure	 The chemical structure shows an acridinium cation (a 9-methyl-7-phenylacridinium cation) linked via an ester group (-COO-) to a 4-(4-aminobutyl)phenyl group. The acridinium ring is substituted with a methyl group at position 9 and a chlorine atom at position 7. The phenyl ring is attached to a butylamino group (-NH-CH2-CH2-CH2-CH3).

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Acridinium is a univalent radical derived from acridine. Acridinium amines are synthetic molecules known for their strong chemiluminescence, commonly used to label molecules containing carbonyl groups, such as aldehydes or carboxyl groups. The chemiluminescence of acridinium amines is triggered by exposure to an alkaline hydrogen peroxide solution, facilitating their use in sensitive detection methodologies within immunoassays and various biological assays. For accurate signal detection in a chemiluminescence analyzer, a trigger solution containing (A) 0.1% H₂O₂ and 0.1 M HNO₃, and (B) 0.25 M NaOH and 2% Triton X-100 is recommended.