

Psoralen TMP Maleimide

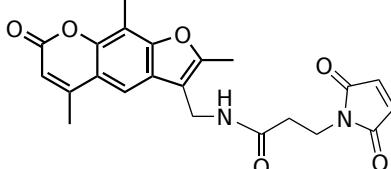
Catalog Number: 39061

Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid white
Molecular Weight	408.41
Soluble In	DMSO
Chemical Structure	 The chemical structure shows a psoralen core (a tricyclic system with two furan rings fused to a central benzene ring) substituted with a 4,5,8-trimethylpsoralen group at the 9-position. Attached to the 4,5,8-trimethylpsoralen group is a 2-(2-maleimidyl)ethyl side chain, which consists of a methylene group attached to an amine group (H-N) and a maleimide group (-C(=O)-CH2-C(=O)-N1C=CC=C1).

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Psoralens and their derivatives (such as 8-TMP and 4,5',8-TMP) are well known to have unique crosslinking features to DNA. Psoralen TMP Maleimide is a thiol-reactive TMP derivative. It is an excellent building block for preparing TMP-labeled oligos from the readily available thiol-modified oligos. The TMP-conjugated oligonucleotides can be used for sequence-specific crosslinking with a target DNA, thus enabling the application of psoralen-conjugated molecules in gene transcription inhibition, gene knockout, and other genomic applications. Psoralen TMP Maleimide may also be used for preparing site-specific DNA/RNA probes via the conjugations with thiol-containing biomolecules such as antibodies.