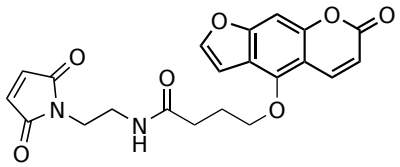
Psoralen MOP Maleimide

Catalog Number: 39056
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	410.38
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Psoralens and their derivatives (such as 8-MOP and 4,5'8-TMP) are well known to have unique crosslinking features to DNA. However, psoralen monomers do not have sequence-specific crosslinking ability with a target DNA. Nakao et al found that 5-MOP more effectively crosslinks DNA compared to the well-known 8-MOP (https://doi.org/10.1002/cbic.202200789). Psoralen MOP Maleimide is a thiol-reactive 5-MOP derivative. It is an excellent building block for preparing MOP-labeled oligos from the readily available thiol-modified oligos. The 5-MOP-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 MOP Maleimide may also be used for preparing site-specific DNA/RNA probes via the conjugations with thiol-containing biomolecules such as antibodies.