

## Psoralen MOP Succinimidyl Ester

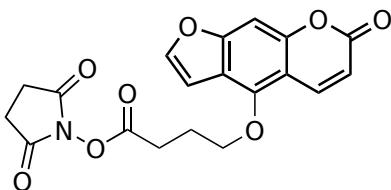
Catalog Number: 39055

Unit Size: 5 mg

### Product Details

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

### Chemical Properties

Appearance	Solid
Molecular Weight	385.33
Soluble In	DMSO
Chemical Structure	 The chemical structure shows a 5-methyl-8-oxo-4H-chromene core. Attached to the 5-position is a four-carbon chain ending in a succinimidyl ester group (-CH2-CH2-C(=O)-O-C(=O)-NH-CO2H). Attached to the 8-position is a two-carbon chain ending in a carbonyl group (-C(=O)-).

### 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 Succinimidyl Ester is a 5-MOP derivative. It is an excellent building block for preparing MOP-labeled oligos from the readily available amino-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 Succinimidyl Ester may also be used for preparing site-specific DNA/RNA probes via the conjugations with amino-containing biomolecules such as antibodies.