

7-Azidocoumarin NHS ester

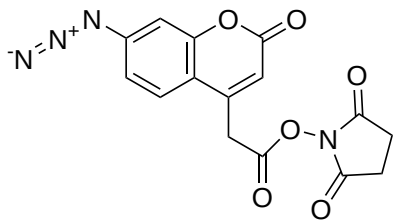
Catalog Number: 39019

Unit Size: 5 mg

Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	342.27
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

7-Azidocoumarin NHS ester is an excellent building block for developing fluorogenic photo-crosslinking probes. It is a bifunctional chemical tool that combines a coumarin fluorophore with an azido group and an NHS ester reactive handle. The NHS ester enables covalent conjugation to primary amines in proteins, peptides, or other biomolecules, while the azido group provides functionality for both photo-crosslinking and azide-alkyne cycloaddition (click chemistry). The coumarin core is UV-excitable and emits in the blue region, allowing visualization of labeled targets. In its azido form, the coumarin fluorescence is effectively quenched, and is restored upon reaction (reduction or cycloaddition), providing high signal-to-noise ratio.

Upon UV irradiation, the azido group can generate a reactive intermediate that enables covalent crosslinking to nearby biomolecules, supporting photo-affinity labeling applications. The compact structure of the molecule supports incorporation into probes with minimal structural perturbation and can be used in the development of fluorogenic systems where fluorescence changes upon reaction.