

## Trifluoromethyl phenyl diazirine NHS ester

Catalog Number: 39007

Unit Size: 5 mg

### Product Details

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

### Chemical Properties

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Appearance	Solid white
Molecular Weight	426.35
Soluble In	DMSO
Chemical Structure	

### Spectral Properties

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Excitation Wavelength	N/A
Emission Wavelength	N/A

### Applications

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Trifluoromethylphenyldiazirines are one type of the most effective diazirines with generally high photoreaction reaction yield by UV irradiation (~350 nm). Diazirines are known for their ability to undergo photochemical reactions when exposed to ultraviolet (UV) light, specifically by forming highly reactive carbene intermediates that react with nearby molecules. The phenylcarbenes generated by the UV irradiation of trifluoromethylphenyldiazirines have much higher reactivity than nitrenes (generated by phenylazides). Phenylcarbene is inactivated by water when neighboring target molecules are absent, and thus does not lead to non-specific crosslinking. This property makes diazirines useful for studying protein-protein, protein-nucleic acid interactions, ligand-receptor binding, and other biomolecular interactions. It's important to note that diazirines are highly reactive and can be challenging to handle due to their instability. They require careful storage and handling, typically in a controlled environment.