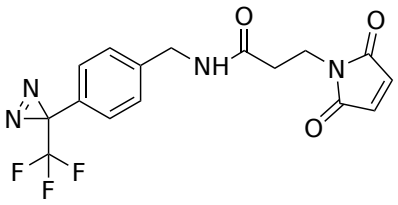
Trifluoromethyl phenyl diazirine maleimide

Catalog Number: 39008
Unit Size: 5 mg

Product Details

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

Chemical Properties

Appearance	Solid off white
Molecular Weight	366.30
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Trifluoromethyl phenyl diazirine maleimide is an excellent building block to develop photoactive probes by reacting with a thiol-containing biomolecule. 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 incactivated 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.