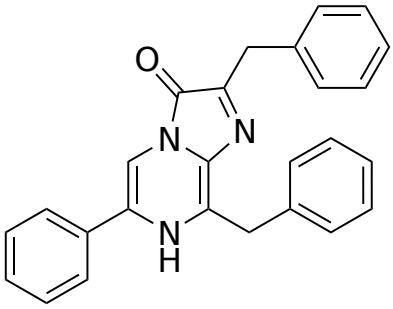
Coelenterazine 400a

Catalog Number: 21167
Unit Size: 250 ug

Product Details

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

Chemical Properties

Appearance	Solid brown
Molecular Weight	391.47
Soluble In	Ethanol
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Bioluminescence, a special form of chemiluminescence, is a natural phenomenon that emits cold light from the reaction catalyzed by the corresponding luciferase in biological systems. The bioluminescent techniques, such as bioluminescence imaging, BRET, and dual-luciferase reporter assay system, have drawn more and more attention due to their broad application in examining various biological processes in vitro and in vivo. This method has low background interference compared to fluorescence in that bioluminescence does not require any excitation light source. Coelenterazine 400a is a bisdeoxy derivative of coelenterazine that has an emission of ~395 nm following conversion by Renilla luciferase (Rluc). It is used in bioluminescence resonance energy transfer (BRET) protocols. Coelenterazine 400a is commonly paired with class 1 and 3 GFP acceptors, including GFP2 and GFP10. BRET assays are widely used in evaluating protein-protein interactions, including those involved in G protein-coupled receptor signaling.