

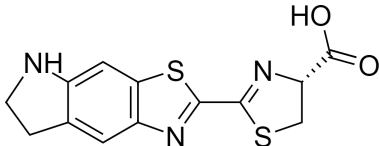
Cyluc1 [(4S)-2-(6,7-Dihydro-5H-thiazolo[4,5-f]indol-2-yl)-4,5-dihydro-thiazole-4-carboxylic acid]

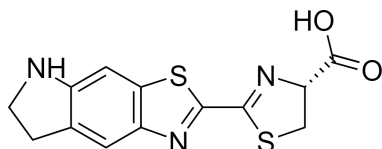
Catalog number: 12480, 12481, 12482
Unit size: 5 mg, 25 mg, 100 mg

Product Details

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	6 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	305.37
Soluble In	DMSO
Chemical Structure	



Spectral Properties

Excitation Wavelength	362 nm
Emission Wavelength	542 nm

Applications

Cyluc1 is a synthetic cyclic alkylaminoluciferin that exhibits properties that are superior to those of D-luciferin for in vivo imaging due to its red-shifted luminescence. It binds to luciferase with higher affinity and emits about 5.7-fold more light than aminoluciferin and 3.2-fold more light than D-luciferin. Its superior light output is maintained over a wide range (1-100 μ M). It has been demonstrated that Cyluc1 readily crosses the blood-brain barrier in mice and provides much improved noninvasive bioluminescence imaging (BLI) of the brain at lower dose when compared to D-luciferin. It yields about 10-fold higher bioluminescent signal than D-luciferin when Luc2 luciferase expressing 4T1 breast cancer cells are implanted into the mammary fat pads of BALB/c mice. A rapid (4-5 min), long-lasting, and steady signal peak is observed following an i.v injection Cyluc1 in mice.