

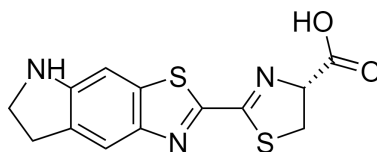
Product Information Sheet

Ordering Information

Product Number:	12480
Product Name:	Cyluc1 [(4S)-2-(6,7-Dihydro-5H-thiazolo[4,5-f]indol-2-yl)-4,5-dihydro-thiazole-4-carboxylic acid]
Unit Size:	5 mg
Storage Conditions:	Freeze (<-15 °C), Desiccated, Avoid Light
Expiration Date:	6 months upon receiving

Chemical and Spectral Properties

Appearance:	Solid
Molecular Weight:	305.37
Chemical Structure:	



Soluble In:	DMSO
Excitation Wavelength:	362
Emission Wavelength:	543

Application Notes

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 BABL/c mice. A rapid (4-5 min), long-lasting, and steady signal peak is observed following an i.v injection Cyluc1 in mice.