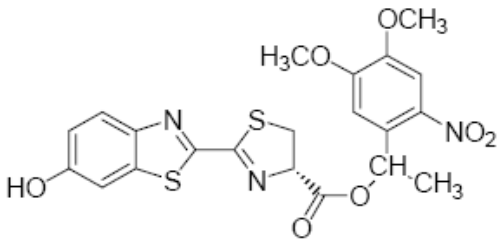
FT-21639A

DMNPE-caged D-Luciferin

Caged membrane-permeable luciferin ester

Product Description

Name :	**DMNPE-caged D-Luciferin**
Catalog Number :	FP-21639A 5 mg
Structure :	$C_{21}H_{19}N_3O_7S_2$
Molecular Weight :	MW= 489,52
Solubility:	DMF or DMSO
Absorption / Emission upon UV photoactivation	λ_{em} (pH ≥7) = 560 nm λ_{em} (pH < 6) = 617 nm
EC (M^{-1} cm^{-1}) **:**	22 000
Color & Form	Yellow solid
Purity	>95% by TLC



Storage: –20°C >1 year. Protect from light and moisture

Introduction

DMNPE-caged D-luciferin is a D-luciferin ester derivative which can cross cell membranes efficiently. Once inside the cells, the ester is continuously hydrolyzed to a supply of D-luciferin. Alternatively a burst of D-luciferin is generated by UV photolysis.

Directions for use

Guidelines for use - *Modification of Bioenergetic Parameters*

- Prepare stock solution at 5 mM
- Incubate at 25°C with DMNEP-luciferin at 25 µM.
- Measured luminescence with readings averaged every 10 s
- Add peptides once the luminescence reached a plateau; this point is considered time zero, and its luminescence level is taken as 100%
- Monitore luminescence continuously
- Normalize luminescence values to those of the corresponding controls in the absence of the peptide

Other protocol may be found in the literature.

References

- **Chicharro C.** *et al*., N-Terminal Fatty Acid Substitution Increases the Leishmanicidal Activity of CA(1-7)M(2-9), a Cecropin-Melittin Hybrid Peptide, *Antimicrob. Agents Chemother*., 45: 2441 - 2449 (2001)Article
- **Luque-Ortega J.** *et al.*, *In Vivo* Monitoring of Intracellular ATP Levels in Leishmania donovani Promastigotes as a Rapid Method To Screen Drugs Targeting Bioenergetic Metabolism, *Antimicrob. Agents Chemother.*, 45: 1121 – 1125 (2001) Article

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- **Luque-Ortega J.** *et al.*,, Fungus-Elicited Metabolites from Plants as an Enriched Source for New Leishmanicidal Agents: Antifungal Phenyl-Phenalenone Phytoalexins from the Banana Plant (*Musa acuminata*) Target Mitochondria of *Leishmania donovani* Promastigotes, *Antimicrob. Agents Chemother.*, 48: 1534 - 1540 (2004) Article
- **Mangoni M.** *et al.,* Temporins, Small Antimicrobial Peptides with Leishmanicidal Activity, *J. Biol. Chem.*, 280: 984 - 990 (2005) Article

Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- ATP-Glo Bioluminescent Cell Viability Assay Kit, BU1150
- ATP disodium salt, 00064A

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/
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