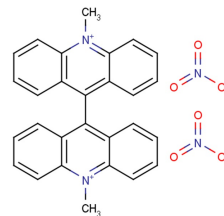


Lucigenin

Chemical Properties

CAS No.:	2315-97-1
Formula:	C ₂₈ H ₂₂ N ₄ O ₆
Molecular Weight:	510.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Lucigenin (L-6868) is a chemiluminescent probe used to indicate the presence of endogenously generated superoxide anion radicals in cells.
Targets(IC ₅₀)	Others: None
In vitro	Upon single-electron reduction of Lucigenin by a radical species the subsequent form of Lucigenin presents amplified chemiluminescence which is measurable and can be correlated to the respective amount of reactive radical species present in the system. In addition to indicating the presence of radicals in cells, Lucigenin shows interaction with redox-active oxidoreductase enzymes. Lucigenin is shown to mediate the reduction of cytochrome C by xanthine oxidase and to increase the rate of NADPH oxidation.

Solubility Information

Solubility	DMSO: 25 mg/mL (48.97 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.959 mL	9.794 mL	19.589 mL
5 mM	0.392 mL	1.959 mL	3.918 mL
10 mM	0.196 mL	0.979 mL	1.959 mL
50 mM	0.039 mL	0.196 mL	0.392 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

- Li Y, et al. Validation of lucigenin (bis-N-methylacridinium) as a chemilumigenic probe for detecting superoxide anion radical production by enzymatic and cellular systems. *J Biol Chem.* 1998 Jan 23;273(4):2015-23.
- Rost M, et al. What do we measure with luminol-, lucigenin- and penicillin-amplified chemiluminescence? 1. Investigations with hydrogen peroxide and sodium hypochlorite. *J Biolumin Chemilumin.* 1998 Nov-Dec;13(6):355-63.

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