bio-techne
TOCRIS

Print Date: Mar 31st 2025

Certificate of Analysis

www.tocris.com

Product Name: **Laurdan** **Catalog No.: 7275** **Batch No.: 3**

CAS Number: 74515-25-6

IUPAC Name: 1-[6-(Dimethylamino)-2-naphthalenyl]-1-dodecanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{35}NO$

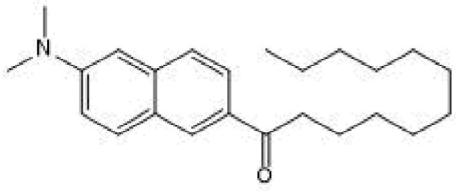
Batch Molecular Weight: 353.55

Physical Appearance: Yellow solid

Solubility: DMF to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity at 240 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 365 nm (MeOH)

λ_{ex}: 364 nm (MeOH)

λ_{em}: 497 nm (MeOH)

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Description:

Key information: Laurdan is a polarity sensitive fluorescent probe for imaging lipid rafts in membranes (also known as lipid microdomains). Suitable for live and fixed cells as well as in whole tissues imaging with multiphoton microscopy. Used for: imaging lipid raft and cell membrane investigations. Application: fluorescence microscope. Suitable for use with generalized polarization (GP) imaging and scanning fluorescence correlation spectroscopy (FCS). Properties and Photophysical Data: When Laurdan is incorporated into membranes, its fluorescence spectra is sensitive to the physical state of the surrounding phospholipids. Excitation and ... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

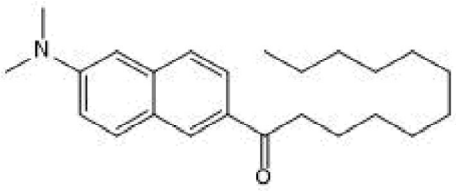
Batch Molecular Formula: $C_{24}H_{35}NO$

Batch Molecular Weight: 353.55

Physical Appearance: Yellow solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMF to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Sanchez *et al* (2012) Laurdan generalized polarization fluctuations measures membrane packing micro-heterogeneity *in vivo*. Proc.Natl.Acad.Sci.U.S.A. ***109*** 7314. PMID: 22529342.

Owen *et al* (2011) Quantitative imaging of membrane lipid order in cells and organisms. Nat.Protoc. ***7*** 24. PMID: 22157973.

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