

Laurdan (6-Dodecanoyl-2-dimethylaminonaphthalene)

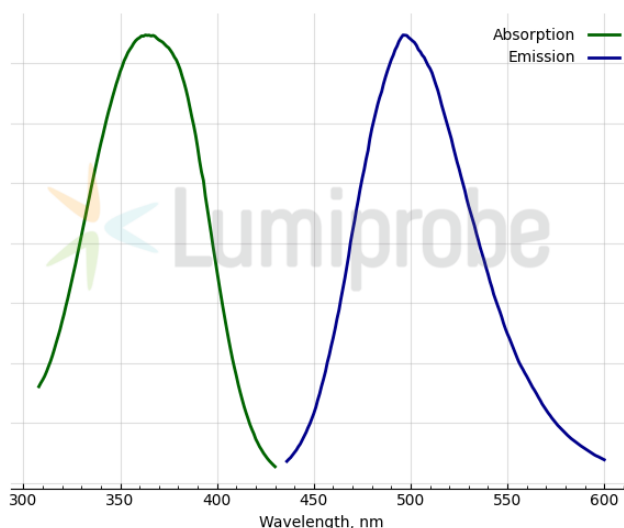
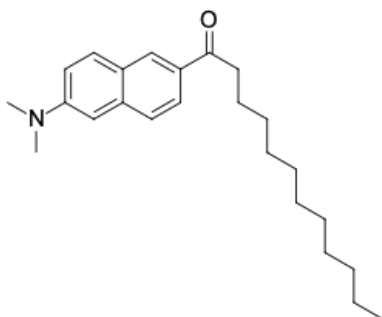
<http://cn.lumiprobe.com/p/laurdan-membrane-fluidity-probe>

Laurdan (6-dodecanoyl-2-dimethylaminonaphthalene) is a membrane-permeable fluorescent probe highly sensitive to the physical state of the surrounding phospholipids.

Laurdan is composed of a chain of lauric acid linked to a naphthalene molecule. The hydrophobic tail of the fatty acid embeds the probe in the lipid bilayer. The naphthalene moiety of the molecule localizes at the level of the glycerol backbones of the membrane phospholipids. The chemical structure and membrane location of Laurdan makes it sensitive to the presence and mobility of water molecules in the lipid bilayer. Quantitation of the generalized polarization of Laurdan can be used to identify the phospholipid phase. When excited at 340 nm, generalized polarization values are 0.6 for the gel phase and -0.2 for the liquid crystalline phase. The generalized polarization changes only with phase state and does not change with a polar head group or pH in the range of 4-10.

Laurdan is suitable for generalized polarization imaging and scanning fluorescence correlation spectroscopy. It can also be used to image lipid rafts (lipid microdomains) in live and fixed cells and whole tissues with multiphoton microscopy. The emission maxima of Laurdan are 440 nm and 490 nm in gel and liquid phase membranes, respectively.

To make a concentrated Laurdan stock solution of up to 20 mM, dissolve it in either DMF or acetonitrile.



外观: 黄色晶体

分子 353.55

量:

CAS 74515-25-6

编号:

分子 C₂₄H₃₅NO

式:

IUPAC 1-[6-(Dimethylamino)naphthalen-2-yl]dodecan-1-one

名称:

溶解 DMF、乙腈、甲醇

度:

质量 NMR ¹H 和 HPLC-MS (95+%)

控制:

储存 收到后 -20°C 避光保存 24 个月。运输: 室温下最多可保存3周。干燥。

条件:

法律 本产品仅供研究目的提供和销售。 本产品并未经过食品、药品、医疗器械、化妆品等领域的安全性和效力测试, 且未经明示或暗示授权用于其他任何用途, 包括但不限于体外诊断、人类或动物用途, 以及商业用途。

激发/ 363

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