

Nile Red

Cat NO. IN0171

Storage: Powder: 2-8°C, 2 years; In solvent (mother liquid): -20°C, 6 months; -80°C, 1 year (protect from light)

Introduction:

Nile red is a lipophilic dye commonly used to detect intracellular lipid droplets. Nile red is a lipophilic oxazine fluorescent dye, which combines with paraffin, triglyceride and various fatty acids and emits fluorescence. Under excitation wavelength of 543nm, Nile red shows strong orange fluorescence (emission wavelength of 598nm). It also appears red under ultraviolet light. In addition, it can also be used for protein staining.

Parameters

Ex/Em: 543/598 nm

CAS: 7385-67-3

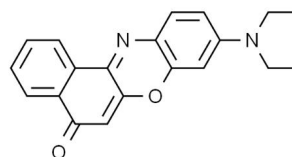
Molecular Formula: C₂₀H₁₈N₂O₂

Molecular Weight: 318.37

Purity: ≥95%

Appearance: Green to black Solid

Solubility: Soluble in DMSO/Ethanol



Protocols (only for reference)

Preparative storage solution

Prepare a 10 mM reserve solution with DMSO. For example: 1 mg of Nile red powder dissolved in 314.1 μL DMSO.

Note: a. Unused storage solution is recommended to be stored at -20°C to avoid repeated freezing and thawing.

b. Hygroscopic DMSO has a significant effect on the solubility of the product, please use a newly opened DMSO.

Preparation of working fluid

Dilute the reservoir with a suitable buffer (such as serum-free medium or PBS, etc.) to prepare a working solution of 1-100 μM.

Note :

a. The final concentration of working fluid is recommended to be optimized according to different cell lines and experimental systems.

b. When it is found to be difficult to dissolve, appropriate ultrasonic treatment can be used to promote dissolution.

Note

1. Avoid using lipids in cell culture. When dyeing, incubation and observation, avoid strong light

exposure to avoid fluorescence quenching.

2. For your safety and health, please wear laboratory coats and disposable gloves when operating.
3. This product is for scientific research use only. Do not use it for medical, clinical diagnosis or treatment, food and cosmetics, etc. Do not store it in ordinary residential areas.

Related Literature

[1]. Zhao G, Gao M, Guo S, Zeng S, Ye C, Wang M, Anwar Z, Hu B, Hong Y. UV filter ethylhexyl salicylate affects cardiovascular development by disrupting lipid metabolism in zebrafish embryos. *Sci Total Environ.* 2023 Aug 25;888:164073. doi: 10.1016/j.scitotenv.2023.164073. Epub 2023 May 16. PMID: 37201812. (IF:10.75)

[2]. Shen X, Zheng H, Han M, Xu X, Li B, Guo Q. Intermolecular forces regulate in-vitro digestion of whey protein emulsion gels: Towards controlled lipid release. *J Colloid Interface Sci.* 2023 Nov;649:245-254. doi: 10.1016/j.jcis.2023.06.023. Epub 2023 Jun 10. PMID: 37348344. (IF:9.9)

Note: For more documentation, please visit Solarbio's official website.