

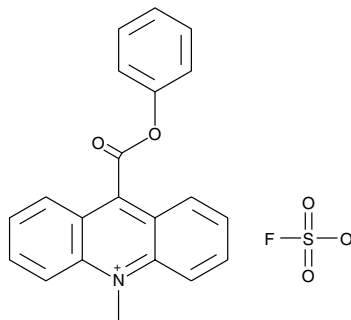
Product Information



10-methyl-9-(phenoxycarbonyl) Acridinium fluorosulfonate

Item No. 10007464

CAS Registry No.: 149300-54-9
Formal Name: 10-methyl-9-(phenoxycarbonyl)acridinium, fluorosulfate
Synonyms: PMAC
MF: C₂₁H₁₆FNO₅S
FW: 413.4
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 203, 261, 286, 367 nm



Laboratory Procedures

For long term storage, we suggest that 10-methyl-9-(phenoxycarbonyl) acridinium fluorosulfonate (PMAC) be stored as supplied at -20°C. It should be stable for at least one year.

PMAC is supplied as a crystalline solid. A stock solution may be made by dissolving the PMAC in an organic solvent purged with an inert gas. PMAC is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PMAC in these solvents is at least 20 mg/ml.

PMAC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PMAC should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PMAC has a solubility of 0.15 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Acridinium esters can replace radioactive isotopes in numerous applications (e.g., immunoassays, antibody labeling, etc.).^{1,2} Their sensitivity is comparable to radiolabeled reagents without the disposal issues associated with radioactive waste. 10-methyl-9-(phenoxycarbonyl) Acridinium fluorosulfonate (PMAC) is a sensitive tool for detection of reactive oxygen species (ROS).³ When immobilized onto polymer microspheres, it can be phagocytized by cells and used as an internal ROS detector. The chemiluminescence of PMAC can be initiated using hypoxanthine/xanthine oxidase or hydrogen peroxide at physiological pH.

References

- Weeks, I., Beheshti, I., McCapra, F., *et al.* Acridinium esters as high-specific-activity labels in immunoassay. *Clin. Chem.* **29**, 1474-1479 (1983).
- Weeks, I., Sturgess, M., Brown, R.C., *et al.* Immunoassays using acridinium esters. *Methods Enzymol.* **133**, 366-387 (1986).
- Hosaka, S., Itagaki, T., and Kuramitsu, Y. Selectivity and sensitivity in the measurement of reactive oxygen species (ROS) using chemiluminescent microspheres prepared by the binding of acridinium ester of ABEI to polymer microspheres. *Luminescence* **14**, 349-354 (1999).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10007464

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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