

Product Name: RHPS 4 methosulfate

Catalog No.: 5311

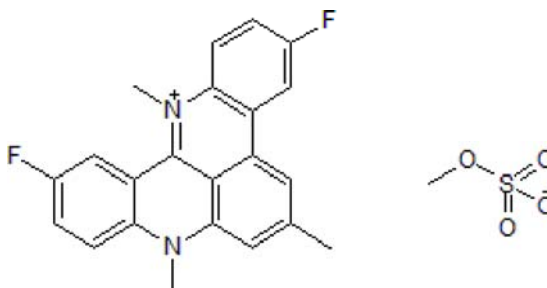
Batch No.: 1

CAS Number: 390362-78-4

IUPAC Name: 3,11-Difluoro-6,8,13-trimethylquino[4,3,2-*kl*]acridinium methylsulfate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₂ H ₁₇ F ₂ N ₂ ·CH ₃ O ₄ S·¼H ₂ O
Batch Molecular Weight:	462.98
Physical Appearance:	Red solid
Solubility:	water to 10 mM with gentle warming DMSO to 20 mM
Storage:	Store at +4°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 98.6% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

Microanalysis:	Carbon Hydrogen Nitrogen			
	Theoretical	59.67	4.46	6.05
	Found	59.39	4.3	5.88

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

RHPS 4 methosulfate is a telomerase inhibitor. Inhibits growth of medulloblastoma and glioblastoma cells *in vitro*. Induces telomere injury and apoptosis, and reduces growth in CG5 breast cancer cell xenografts in mice. Sensitizes radiation resistant glioblastoma cell lines to radiation.

Physical and Chemical Properties:

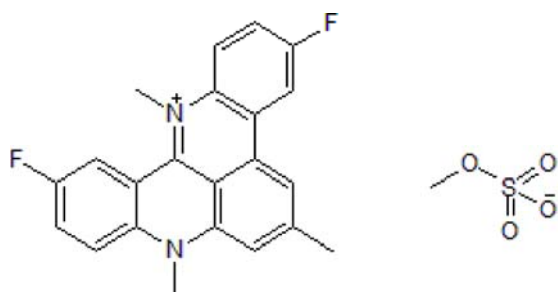
Batch Molecular Formula: C₂₂H₁₇F₂N₂·CH₃O₄S·¼H₂O

Batch Molecular Weight: 462.98

Physical Appearance: Red solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°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:

water to 10 mM with gentle warming

DMSO 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. Our standard recommendations are:

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:

Berardinelli *et al* (2015) The G-quadruplex-stabilising agent RHPS4 induces telomeric dysfunction and enhances radiosensitivity in glioblastoma cells. *DNA Repair (Amst.)* **25** 104. PMID: 25467559 .

Lagah *et al* (2014) RHPS4 G-quadruplex ligand induces anti-proliferative effects in brain tumor cells. *PLoS One* **9** e86187. PMID: 24454961.

Phatak *et al* (2007) Telomere uncapping by the G-quadruplex ligand RHPS4 inhibits clonogenic tumour cell growth *in vitro* and *in vivo* consistent with a cancer stem cell targeting mechanism. *Br.J.Cancer* **96** 1223. PMID: 17406367.

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