# biotechne<sup>®</sup> TOCRIS

## Certificate of Analysis

### www.tocris.com

Print Date: Apr 4th 2025

#### Product Name: RHPS 4 methosulfate

CAS Number: 390362-78-4 IUPAC Name: 3,11-Difluoro-6,

3,11-Difluoro-6,8,13-trimethylquino[4,3,2-*k*l]acridinium methylsulfate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility:  $C_{22}H_{17}F_2N_2.CH_3O_4S.^{1}_4H_2O$ 462.98 Red solid water to 10 mM with gentle warming DMSO to 20 mM Store at +4°C

## Storage: Batch Molecular Structure:

## 2. ANALYTICAL DATA

HPLC: <sup>1</sup>H NMR: Mass Spectrum: Microanalysis: Shows 98.2% purity Consistent with structure Consistent with structure

	Carbon H	ydrogen N	litrogen
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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www.locns.com

Catalog No.: 5311

Batch No.: 1

## biotechne TOCRIS

Batch No.: 1

#### www.tocris.com

#### Product Name: RHPS 4 methosulfate

CAS Number: 390362-78-4

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

#### **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:**

 $\begin{array}{l} \mbox{Batch Molecular Formula: } C_{22}H_{17}F_2N_2.CH_3O_4S.1{\!\!}^4H_2O\\ \mbox{Batch Molecular Weight: } 462.98\\ \mbox{Physical Appearance: Red solid} \end{array}$ 

#### 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.

Catalog No.: 5311

#### 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. \*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:**

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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