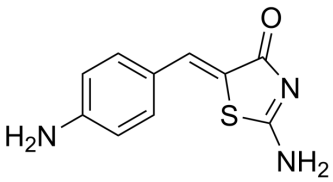
PFM39

Cat. No.:	HY-120951
CAS No.:	1310744-67-2
Molecular Formula:	$C_{10}H_9N_3OS$
Molecular Weight:	219.26
Target:	Endonuclease
Pathway:	Cell Cycle/DNA Damage
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (456.08 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.5608 mL	22.8040 mL	45.6080 mL
	5 mM	0.9122 mL	4.5608 mL	9.1216 mL
	10 mM	0.4561 mL	2.2804 mL	4.5608 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (11.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (11.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PFM39, a Mirin analog, is a potent and selective MRE11 exonuclease inhibitor. PFM39 inhibits phosphate rotation for dsDNA exonuclease activity. PFM39 does not inhibit TmMre11 or human MRE11/MRN endonuclease activity[1].

In Vitro

PFM39 (100 μM) treatment impairs G2-phase double-strand break (DSB) repair in 1BR3-hTERT fibrolasts following ionizing irradiation (IR)[1].

PFM39 (50 μM) inhibits homologous recombination (HR) without significantly increasing NHEJ[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Atsushi Shibata , et al. DNA double-strand break repair pathway choice is directed by distinct MRE11 nuclease activities. Mol Cell. 2014 Jan 9;53(1):7-18.

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