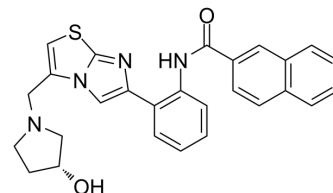


SRT 2183

Cat. No.:	HY-19759		
CAS No.:	1001908-89-9		
Molecular Formula:	C ₂₇ H ₂₄ N ₄ O ₂ S		
Molecular Weight:	468.57		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (533.54 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div>Solvent</div> <div>Concentration</div>	<div>Mass</div>	1 mg	5 mg	10 mg
		1 mM		2.1342 mL	10.6708 mL	21.3415 mL
		5 mM		0.4268 mL	2.1342 mL	4.2683 mL
		10 mM		0.2134 mL	1.0671 mL	2.1342 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: ≥ 2.08 mg/mL (4.44 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	SRT 2183 is a selective Sirtuin-1 (SIRT1) activator with an EC _{1.5} value of 0.36 μM ^[1] . SRT 2183 induces growth arrest and apoptosis, concomitant with deacetylation of STAT3 and NF-κB, and reduction of c-Myc protein levels ^[2] .
IC ₅₀ & Target	EC1.5: 0.36 μM (SIRT1) ^[1]
In Vitro	<p>SRT 2183 (1-10 μM; 24-72 hours) inhibits the growth of Reh and Nalm-6 cells in a time- and dose-dependent manner^[2].</p> <p>SRT 2183 (5-10 μM in Reh cells; 10 μM in Ly3 cells; 24 hours) induces expression of DNA-damage response genes associated with accumulation of phospho-H2A.X levels^[2].</p> <p>SRT2183 inhibits RANKL-induced osteoclast differentiation, fusion and resorptive capacity without affecting osteoclast survival^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[2]</p>

Cell Line:	Reh cells, Nalm-6 cells (pre-B acute lymphoblastic leukemia (ALL) cell lines)
Concentration:	1 μ M, 5 μ M, 10 μ M
Incubation Time:	24 hours, 48 hours, 72 hours
Result:	Inhibited the growth of Reh and Nalm-6 cells in a time- and dose-dependent manner. The IC ₅₀ (median inhibition concentration) values for SRT 2183-mediated inhibition of proliferation at 48 h are approximately 8.7 μ M for Reh cells and approximately 3.2 μ M for Nalm-6 cells.

Western Blot Analysis^[2]

Cell Line:	Reh cells, Ly3 cells
Concentration:	5 μ M and 10 μ M (Reh cells); 10 μ M (Ly3 cells)
Incubation Time:	24 hours
Result:	Induced accumulation of phospho-H2A.X in Reh as well as in Ly3 cells.

CUSTOMER VALIDATION

- Aging. 2020 Nov 20;12(23):24208-24218.
- J BUON. Nov-Dec 2020;25(6):2665-2671.

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