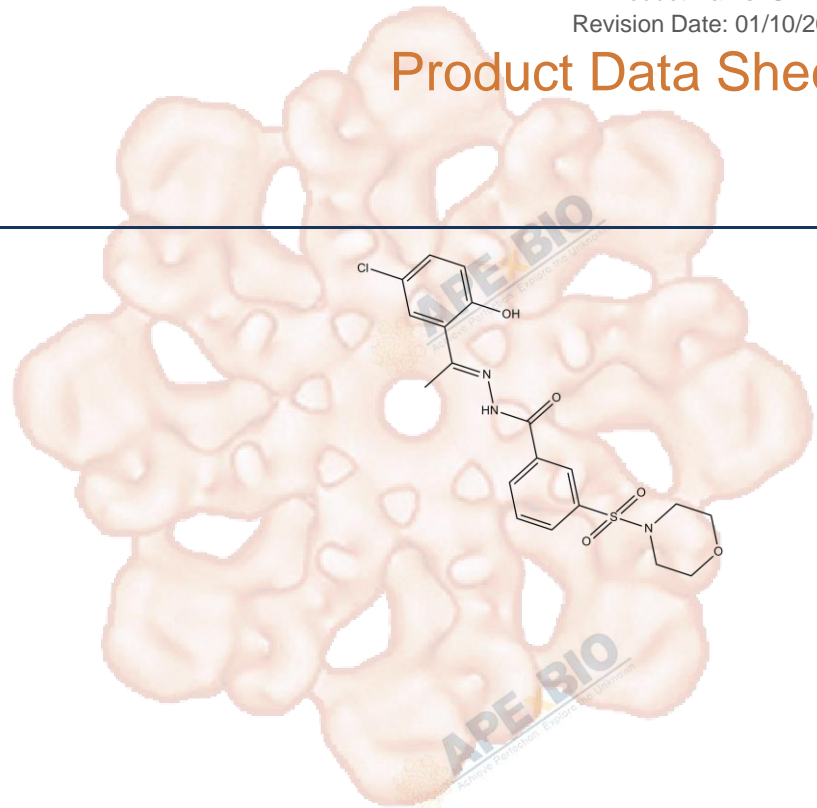


# Product Data Sheet

## SP2509

<b>Cat. No.:</b>	B4894
<b>CAS No.:</b>	1423715-09-6
<b>Formula:</b>	C <sub>19</sub> H <sub>20</sub> CIN <sub>3</sub> O <sub>5</sub> S
<b>M.Wt:</b>	437.90
<b>Synonyms:</b>	
<b>Target:</b>	Chromatin/Epigenetics
<b>Pathway:</b>	Histone Demethylases
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

insoluble in H<sub>2</sub>O; insoluble in EtOH;  $\geq 19.45$  mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.2836 mL	11.4181 mL	22.8363 mL
	<b>5 mM</b>	0.4567 mL	2.2836 mL	4.5673 mL
	<b>10 mM</b>	0.2284 mL	1.1418 mL	2.2836 mL

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

## Biological Activity

Shortsummary

Demethylase 1 (LSD1) antagonist, novel Lysine-specific

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

Cell Line:	OCI-AML3 and MOLM13
Preparation method:	Limited solubility. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	16 h

	Applications:	SP2509 inhibits LSD1 activity, reduces colony growth and induces apoptosis of cultured AML cells. SP2509 treatment also inhibits the association of LSD1 with CoREST, increases promoter-specific H3K4Me3 and induces p53, p21 and C/EBP $\alpha$ in AML cells. Furthermore, treatment with SP2509 induces differentiation of cultured and primary AML cells
In Vivo	<b>Animal experiment</b>	
	Animal models:	NOD/SCID mice
	Dosage form:	25 mg/kg SP2509 administered twice per week (Tuesday and Thursday) intraperitoneally for 3 weeks
	Applications:	Treatment with either SP2509 improves the median survival of the mice infused with OCI-AML3 cells (37 and 36.5 days, respectively, versus 19.5 days for vehicle control). Notably, combined treatment with panobinostat and SP2509 further improves the median survival of the mice (44.5 days), as compared with treatment with SP2509 or panobinostat alone (P<0.01).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

1. Fiskus W, Sharma S, Shah B et al. Highly effective combination of LSD1 (KDM1A) antagonist and pan-histone deacetylase inhibitor against human AML cells. *Leukemia*. 2014 Nov;28(11):2155-64

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*

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**APEx BIO Technology**

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