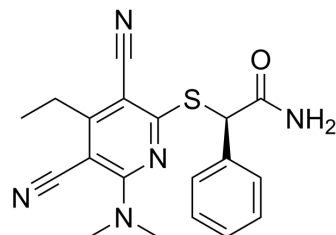


## GSK-3484862

<b>Cat. No.:</b>	HY-135146		
<b>CAS No.:</b>	2170136-65-7		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>19</sub> N <sub>5</sub> OS		
<b>Molecular Weight:</b>	365.45		
<b>Target:</b>	DNA Methyltransferase		
<b>Pathway:</b>	Epigenetics		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 20.83 mg/mL (57.00 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.7364 mL	13.6818 mL	27.3635 mL
		5 mM	0.5473 mL	2.7364 mL	5.4727 mL
10 mM		0.2736 mL	1.3682 mL	2.7364 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.08 mg/mL (5.69 mM); Suspended solution; Need ultrasonic  2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.08 mg/mL (5.69 mM); Suspended solution; Need ultrasonic				

### BIOLOGICAL ACTIVITY

<b>Description</b>	GSK-3484862 is a non-covalent inhibitor for DNA methyltransferase (Dnmt1). GSK-3484862 induces DNA hypomethylation to against cancer. GSK-3484862 mediates dramatic demethylation in murine embryonic stem cells with minimal non-specific toxicity <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	DNMT1
<b>In Vitro</b>	GSK-3484862 (0-10 μM, 6 or 14 days) induces dramatic DNA methylation loss <sup>[2]</sup> . ?GSK-3484862 (0-10 μM, 4 days) results in a modest reduction in DNMT1 protein level <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay <sup>[2]</sup>

Cell Line:	Murine embryonic stem cells (mESC, wild-type (WT) or Dnmt1/3a/3b triple knockout (TKO))
Concentration:	2 $\mu$ M and 10 $\mu$ M
Incubation Time:	6 or 14 days
Result:	Induced dramatic DNA methylation loss, with global CpG methylation levels falling from near 70% in WT mESC to less than 18% after 6 days.

#### Western Blot Analysis<sup>[2]</sup>

Cell Line:	Murine embryonic stem cells (mESC, wild-type (WT) or Dnmt1/3a/3b triple knockout (TKO))
Concentration:	2 $\mu$ M and 10 $\mu$ M
Incubation Time:	4 days
Result:	Resulted in a modest reduction in DNMT1 protein level.

## CUSTOMER VALIDATION

- Nat Genet. 2022 Nov 4.
- Nat Commun. 2023 Apr 14;14(1):2122.
- J Clin Invest. 2023 Feb 28;e167953.
- Mol Cancer Res. 2022 Aug 4;MCR-22-0182.
- bioRxiv. September 13, 2021.

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

## REFERENCES

[1]. Keystone Symposia 2019 - Epigenetics and Human Disease

[2]. Nathalia Azevedo Portilho, et al. The DNMT1 inhibitor GSK-3484862 mediates global demethylation in murine embryonic stem cells.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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