

# **Product** Data Sheet

## **AZ506**

Cat. No.: HY-134828

CAS No.: 2043321-54-4

Molecular Formula:  $C_{33}H_{40}N_6O$ Molecular Weight: 536.71

Target: Histone Methyltransferase

Pathway: Epigenetics

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 6 months

-20°C 1 month

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 50 mg/mL (93.16 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.8632 mL	9.3160 mL	18.6320 mL
	5 mM	0.3726 mL	1.8632 mL	3.7264 mL
	10 mM	0.1863 mL	0.9316 mL	1.8632 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 (4.66 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline) Solubility: 2.5 mg/mL (4.66 mM); Suspended solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.66 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

AZ506 is a potent SMYD2 inhibitor with an IC<sub>50</sub> of 17 nM. AZ506 inhibits SMYD2 methyltransferase activity in cells, leading to a decrease in the SMYD2-mediated methylation signal<sup>[1]</sup>.

 $\begin{array}{ccc} {\rm IC_{50}\,\&\,Target} & & {\rm SMYD2} \\ & & {\rm 17\,nM\,(IC_{50})} \end{array}$ 

In Vitro AZ506 inhibits SMYD2 mediated methylation of monomethyl p53 peptide in U2OS cells with an EC<sub>50</sub> of 1.2 μM. AZ506 inhibits

SMYD2-mediated methylation (p53-me in U2OS cells) with an IC <sub>50</sub> of 2.43 $\mu$ M <sup>[1]</sup>	SMYD2-mediated meth	ylation (p53-me in	U2OS cells) wit	th an $IC_{50}$ of 2.43 $\iota$	uΜ <sup>[1]</sup> .
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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **CUSTOMER VALIDATION**

• Cells. 2022 Apr 8;11(8):1262.

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#### **REFERENCES**

[1]. Cowen SD, et al. Design, Synthesis, and Biological Activity of Substrate Competitive SMYD2 Inhibitors. J Med Chem. 2016;59(24):11079-11097.

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

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