## SMYD3-IN-2

®

MedChemExpress

Cat. No.:	HY-152228
Molecular Formula:	C <sub>26</sub> H <sub>21</sub> BrN <sub>2</sub> O <sub>4</sub>
Molecular Weight:	505.36
Target:	Histone Methyltransferase; Autophagy
Pathway:	Epigenetics; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

Product Data Sheet

Disconce       SMYD3-IN-2 is a SMYD3 inhibitor against gastric cancer via inducing lethal autophagy. SMYD3-IN-2 has inhibitory for SMYD3 and BGC823 cells with IC <sub>50</sub> values of 0.81 µM and 0.75 µM, respectively. SMYD3-IN-2 can be used for the research of cancer <sup>11</sup> .         IC <sub>50</sub> & Target       SMYD3       SMYD3-IN-2 (compound 7r) (1.0 µM) exhibits potent inhibitory capacity against SMYD3 and BGC823 cells with IC <sub>50</sub> values of 0.81 µM and 0.75 µM, respectively. SMYD3-IN-2 can be used for the research of cancer <sup>11</sup> .         In Viro       SMYD3-IN-2 (compound 7r) (1.0 µM) exhibits potent inhibitory capacity against SMYD3 and BGC823 cells with IC <sub>50</sub> values of 0.81 µM and 0.75 µM, respectively <sup>11</sup> .         SMYD3-IN-2 (A PM) suppresses the proliferation of BGC823 stomach adenocarcinoma cells by inducing autophagic cell death <sup>11</sup> .         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         Western Blot Analysis <sup>[11]</sup> Cell Line:       BGC823 cells         Concentration:       1.0 µM         Incubation Time:       24 h         Result:       Suppressed the methylation levels of H3K4 and could significantly inhibit the lysine methylation of Akt1 by SMYD3.         In Vivo       SMYD3-IN-2 (compound 7r) (i.p.; 15 and 30 mg/kg) suppresses the growth of BGC823 xenograft models in vivo <sup>11</sup> .         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         Animal Model:       Xenograft Balb/c nude mice models <sup>[11]</sup> Desage:       15 and 30 mg/kg			
ICs <sub>50</sub> & Target       SMYD3         0.81 μM μM (ICs <sub>50</sub> )       SMYD3-IN-2 (compound 7r) (1.0 μM) exhibits potent inhibitory capacity against SMYD3 and BGC823 cells with ICs <sub>50</sub> values of 0.81 μM and 0.75 μM, respectively <sup>[1]</sup> . SMYD3-IN-2 (1.0 μM; 24 h) can suppress Akt methylation and activation by SMYD3 <sup>[1]</sup> . SMYD3-IN-2 (0.48 h) suppresses the proliferation of BGC823 stomach adenocarcinoma cells by inducing autophagic cell death <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis <sup>[1]</sup> Cell Line:       BGC823 cells         Concentration:       1.0 μM         Incubation Time:       24 h         Result:       Suppressed the methylation levels of H3K4 and could significantly inhibit the lysine methylation of Akt1 by SMYD3.         In Vivo       SMYD3-IN-2 (compound 7r) (i.p.; 15 and 30 mg/kg) suppresses the growth of BGC823 xenograft models in vivo <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.         MCE       SMYD3-IN-2 (compound 7r) (i.p.; 15 and 30 mg/kg) suppresses the growth of BGC823 xenograft models in vivo <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         Animal Model:       Xenograft Balb/c nude mice models <sup>[1]</sup> Dosage:       15 and 30 mg/kg	Description	SMYD3-IN-2 is a SMYD3 inhib and BGC823 cells with IC <sub>50</sub> v	pitor against gastric cancer via inducing lethal autophagy. SMYD3-IN-2 has inhibitory for SMYD3 values of 0.81 $\mu$ M and 0.75 $\mu$ M, respectively. SMYD3-IN-2 can be used for the research of cancer <sup>[1]</sup> .
In Vitro       SMYD3-IN-2 (compound 7r) (1.0 μM) exhibits potent inhibitory capacity against SMYD3 and BGC823 cells with IC <sub>50</sub> values of 0.81 μM and 0.75 μM, respectively <sup>[1]</sup> .         SMYD3-IN-2 (1.0 μM; 24 h) can suppress Akt methylation and activation by SMYD3 <sup>[1]</sup> .         SMYD3-IN-2 (0-48 h) suppresses the proliferation of BGC823 stomach adenocarcinoma cells by inducing autophagic cell death <sup>[1]</sup> .         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         Western Blot Analysis <sup>[1]</sup> Cell Line:       BGC823 cells         Concentration:       1.0 μM         Incubation Time:       24 h         Result:       Suppressed the methylation levels of H3K4 and could significantly inhibit the lysine methylation of Akt1 by SMYD3.         In Vivo       SMYD3-IN-2 (compound 7r) (i.p.; 15 and 30 mg/kg) suppresses the growth of BGC823 xenograft models in vivo <sup>[1]</sup> .         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         Animal Model:       Xenograft Balb/c nude mice models <sup>[1]</sup> Dosage:       15 and 30 mg/kg         Administration:       Intraperitoneally administration	IC <sub>50</sub> & Target	SMYD3 0.81 μΜ μΜ (IC <sub>50</sub> )	
Cell Line:       BGC823 cells         Concentration:       1.0 μM         Incubation Time:       24 h         Result:       Suppressed the methylation levels of H3K4 and could significantly inhibit the lysine methylation of Akt1 by SMYD3.         In Vivo       SMYD3-IN-2 (compound 7): 15 and 30 mg/kg) suppresses the growth of BGC823 xenograft models in vivo <sup>[1]</sup> .         Animal Model:       Xenograft Balb/c nude mice models <sup>[1]</sup> Dosage:       15 and 30 mg/kg         Administration:       Intraperitoneally administration	In Vitro	SMYD3-IN-2 (compound 7r) (1.0 μM) exhibits potent inhibitory capacity against SMYD3 and BGC823 cells with IC <sub>50</sub> values of 0.81 μM and 0.75 μM, respectively <sup>[1]</sup> . SMYD3-IN-2 (1.0 μM; 24 h) can suppress Akt methylation and activation by SMYD3 <sup>[1]</sup> . SMYD3-IN-2 (0-48 h) suppresses the proliferation of BGC823 stomach adenocarcinoma cells by inducing autophagic cell death <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis <sup>[1]</sup>	
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In Vivo       SMYD3-IN-2 (compound 7r) (i.p.; 15 and 30 mg/kg) suppresses the growth of BGC823 xenograft models in vivo <sup>[1]</sup> .         MCE has not independently confirmed the accuracy of these methods. They are for reference only.         Animal Model:       Xenograft Balb/c nude mice models <sup>[1]</sup> Dosage:       15 and 30 mg/kg         Administration:       Intraperitoneally administration		Result:	Suppressed the methylation levels of H3K4 and could significantly inhibit the lysine methylation of Akt1 by SMYD3.
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Dosage:15 and 30 mg/kgAdministration:Intraperitoneally administration		Animal Model:	Xenograft Balb/c nude mice models <sup>[1]</sup>
Administration: Intraperitoneally administration		Dosage:	15 and 30 mg/kg
		Administration:	Intraperitoneally administration
Result: Remarkably suppressed the tumor volume, tumor weight and growth curves of gastric		Result:	Remarkably suppressed the tumor volume, tumor weight and growth curves of gastric

cancer xenografts in a dose-dependent manner.
Resulted in strong immunohistochemistry staining of LC3-II and p62, weak staining of p-
Akt (T308) and Ki67.

## REFERENCES

[1]. Hong-Ping Zhu, et al. Discovery of tetrahydrofuranyl spirooxindole-based SMYD3 inhibitors against gastric cancer via inducing lethal autophagy. Eur J Med Chem. 2023 Jan 15;246:115009.

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

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA