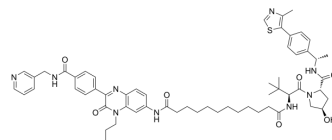


Nampt degrader-2

Cat. No.:	HY-152154
Molecular Formula:	C ₅₉ H ₇₃ N ₉ O ₇ S
Molecular Weight:	1052.33
Target:	PROTACs; NAMPT
Pathway:	PROTAC; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	<p>Nampt degrader-2 is a fluorescent PROTAC, which efficiently degrades NAMPT with an IC₅₀ of 41.9 nM. Nampt degrader-2 binds to NAMPT and VHL to form a ternary complex and subsequently induced NAMPT degradation via ubiquitin-proteasome system (UPS). Nampt degrader-2 leads to significant reduction of NAD⁺ and exerts potent antitumor activities^[1].</p>									
IC₅₀ & Target	VHL	NAMPT 41.9 nM (IC ₅₀)								
In Vitro	<p>Nampt degrader-2 (Compound B4; 30 nM; 24 h) is able to degrade NAMPT with a DC₅₀ value of 8.4 nM. Nampt degrader-2 enables the visualization of degradation in A2780 cells^[1].</p> <p>Nampt degrader-2 (Compound B4) shows the best antitumor activity in suppression of the proliferation in A2780 cells (IC₅₀ = 12.1 nM)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A2780 cells</td> </tr> <tr> <td>Concentration:</td> <td>30 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Were able to degrade NAMPT in A2780 cells at the concentration of 30 nM.</td> </tr> </table>		Cell Line:	A2780 cells	Concentration:	30 nM	Incubation Time:	24 h	Result:	Were able to degrade NAMPT in A2780 cells at the concentration of 30 nM.
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In Vivo	<p>Nampt degrader-2 (Compound B4; 10-30 mg/kg; i.p; once a day; for 14 consecutive days) shows excellent antitumor effects in a dose-dependent manner. And Nampt degrader-2 significantly decreases the NAMPT levels in the tumors^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>BALB/C nude female mice (4-5 weeks of age, 14-18 g) injected with A2780 cells^[1]</td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg, 30 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p; once a day; for 14 consecutive days</td> </tr> </table>		Animal Model:	BALB/C nude female mice (4-5 weeks of age, 14-18 g) injected with A2780 cells ^[1]	Dosage:	10 mg/kg, 30 mg/kg	Administration:	i.p; once a day; for 14 consecutive days		
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Result:	Achieved excellent antitumor effects in a dose-dependent manner.
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REFERENCES

[1]. Junfei Cheng, et al. Making Protein Degradation Visible: Discovery of Theranostic PROTACs for Detecting and Degrading NAMPT. J Med Chem. 2022 Dec 8;65(23):15725-15737.

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

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