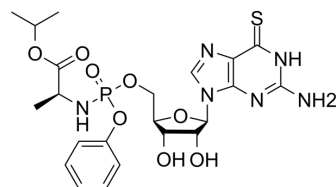


## PRO-905

Cat. No.:	HY-155995
CAS No.:	2762209-68-5
Molecular Formula:	C <sub>22</sub> H <sub>29</sub> N <sub>6</sub> O <sub>8</sub> PS
Molecular Weight:	568.54
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Pro-905 is a phosphite peptide with antitumor activity. Pro-905 delivers the active nucleotide antimetabolite thioguanosine monophosphate (TGMP) to the tumor. Pro-905 effectively prevents incorporation of purine salvage substrates into nucleic acids and inhibits colony formation in human malignant peripheral nerve sheath tumors (MPNST) cells. Pro-905 inhibits purine salvage incorporation to nucleic acids and prevents cell growth. Pro-905 inhibits the growth of MPNST and enhances the anti-tumor efficacy of JHU395 (HY-124778) <sup>[1]</sup> .								
<b>In Vitro</b>	<p>Pro-905 (10 μM, 120 h) inhibits cell proliferation and guanine incorporation to newly synthesized DNA and RNA using JH-2-002 cells with JHU395 (HY-124778) 1 μM, 120 h<sup>[1]</sup>.</p> <p>Pro-905 (10 μM, 120 h) inhibits colony formation in sNF96.2 and JH-2-002 human MPNST cell with JHU395 (1 μM, 120 h)<sup>[1]</sup>.</p> <p>Pro-905 (10 μM, 6 h) inhibits purine salvage-dependent <sup>3</sup>H-hypoxanthine incorporation to DNA and RNA in sNF96.2 cells<sup>[1]</sup></p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>sNF96.2 and JH-2-002 human MPNST cells</td> </tr> <tr> <td>Concentration:</td> <td>10 μM (in combination with JHU395 (HY-124778)(1μM))</td> </tr> <tr> <td>Incubation Time:</td> <td>120 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited cell proliferation with effects on nucleic acid and induced DNA damage (γH2AX).</td> </tr> </table>	Cell Line:	sNF96.2 and JH-2-002 human MPNST cells	Concentration:	10 μM (in combination with JHU395 (HY-124778)(1μM))	Incubation Time:	120 h	Result:	Inhibited cell proliferation with effects on nucleic acid and induced DNA damage (γH2AX).
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<b>In Vivo</b>	<p>Pro-905 (20 mg/kg, i.p., 5 days per week for 4 weeks ) slows tumor growth in Nod cid gamma (NSG) mice models bearing the human MPNST PDX JH-2-031<sup>[1]</sup>.</p> <p>Pro-905 (10 mg/kg, i.p, 5 d/week) in B6 mice with flank MPNST inhibits tumor nucleotide metabolism and abrogates MPNST proliferation with JHU395 (1.2 mg/kg, p.o.) <sup>[1]</sup>.</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>B6 mice with flank MPNST<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg (in combination with JHU3955 (1.2 mg/kg, p.o.))</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection</td> </tr> </table>	Animal Model:	B6 mice with flank MPNST <sup>[1]</sup>	Dosage:	10 mg/kg (in combination with JHU3955 (1.2 mg/kg, p.o.))	Administration:	Intraperitoneal injection		
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Result:	Prevented growth of established tumors to a greater extent. Induced tumors significantly decrease, mean percent proliferation, JHU395 0.82%, Pro-905 1.25%, combination 0.18%.
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Animal Model:	Nod scid gamma (NSG) mice with JH-2-031 MPNST [1]
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Dosage:	20 mg/kg
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Administration:	Intraperitoneal injection
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Result:	Caused animal body weights remained within 10% of starting weights over two weeks of dosing.
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## REFERENCES

[1]. Lemberg KM, et al. Pro-905, a novel purine antimetabolite, combines with glutamine amidotransferase inhibition to suppress growth of malignant peripheral nerve sheath tumor. Mol Cancer Ther. 2023 Aug 24:MCT-23-0258.

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

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