

PRO-905

Chemical Properties

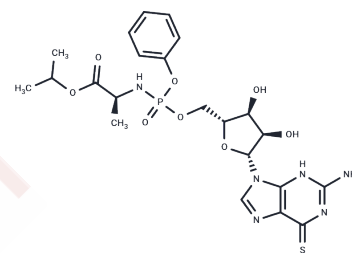
CAS No. : 2762209-68-5

Formula: C₂₂H₂₉N₆O₈PS

Molecular Weight: 568.54

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Pro-905 is a phosphonate peptide with antitumor activity. It delivers the active nucleotide antimetabolite thioinosine monophosphate (TGMP) to tumors. Pro-905 effectively inhibits the binding of purine residue substrates to nucleic acids, thereby suppressing colony formation of human malignant peripheral nerve sheath tumor (MPNST) cells. It prevents purine residues from incorporating into nucleic acids, hindering cell growth. Additionally, Pro-905 inhibits the growth of MPNST and enhances the antitumor effect of JHU395.
Targets(IC50)	Others
In vitro	Pro-905 (10 μM, 120 h) in combination with JHU395 (1 μM, 120 h) suppresses the proliferation of JH-2-002 cells and the incorporation of guanine into newly synthesized DNA and RNA. This combination also inhibits colony formation of human MPNST cells sNF96.2 and JH-2-002. Additionally, Pro-905 (10 μM, 6 h) reduces the binding of purine-dependent 3H-hypoxanthine to DNA and RNA in sNF96.2 cells.
In vivo	Pro-905 administered at 20 mg/kg via intraperitoneal injection, five days a week for four weeks, reduced tumor growth in NSG mice bearing human MPNST PDX JH-2-031. In a B6 flank MPNST mouse model, the combination of Pro-905 at 10 mg/kg (intraperitoneal injection, five days a week) and JHU395 at 1.2 mg/kg (oral administration) inhibited tumor nucleotide metabolism and suppressed MPNST proliferation.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7589 mL	8.7945 mL	17.5889 mL
5 mM	0.3518 mL	1.7589 mL	3.5178 mL
10 mM	0.1759 mL	0.8794 mL	1.7589 mL
50 mM	0.0352 mL	0.1759 mL	0.3518 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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