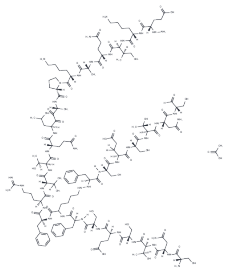
Data Sheet (Cat.No.TP1076L)

TargetMol

AUNP-12 acetate

Chemical Properties



CAS No. :

Formula: C144H230N40O50

Molecular Weight: 3321.61

Storage: Keep away from moisture
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	AUNP-12 acetate is a polypeptide inhibitor of PD-1 that is equivalent to PD-1 and PD-2 in inhibiting lymphocyte proliferation and effector fuction, in addition to immune activation and antitumor activity.
Targets(IC50)	PD-1/PD-L1
In vitro	In vitro, AUNP-12 displayed equipotent antagonism toward PD-L1 and PD-L2 in the rescue of lymphocyte proliferation and effector functions. In human PBMC cells, AUNP-12 was also able to significantly rescue recombinant human PD-L1 and PD-L2 mediated inhibition in vitro, with average EC50 values of 63.3 nM and 44.1 nM against PD-L1 and PD-L2 respectively. [1]
In vivo	AUNP-12 acetate rescued the proliferation in the mouse splenocyte assay system, with average EC50 values of 17 nM and 16.6 nM against rmPD-L1 and rmPD-L2 respectively. AUNP-12 (6 hours) showed a Plasma protein binding of 93.9% with plasma stability of more than 60%. AUNP-12 exhibited a half-life of 90 minutes in mouse liver microsomes. In male Balb/c mice, AUNP-12 subcutaneous injection or intravenous injection as a concentration of 3 mg/kg for its PK study. As a result, AUNP-12 shows a low volume of distribution, and the peak plasma levels reach at 0.2-0.4 hours. The absolute bioavailability of AUNP-12 is about 77% in mice. [1]

Solubility Information

Solubility	DMSO: 100 mg/mL (30.11 mM),Sonication is recommended. H2O: 25 mg/mL (7.53 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3011 mL	1.5053 mL	3.0106 mL
5 mM	0.0602 mL	0.3011 mL	0.6021 mL
10 mM	0.0301 mL	0.1505 mL	0.3011 mL
50 mM	0.006 mL	0.0301 mL	0.0602 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.

Reference

Pottayil G Sasikumar, et al. A Rationally Designed Peptide Antagonist of the PD-1 Signaling Pathway as an Immunomodulatory Agent for Cancer Therapy. Mol Cancer Ther. 2019 Jun;18(6):1081-1091.