

RP-832c

Chemical Properties

CAS No. : 2375823-45-1

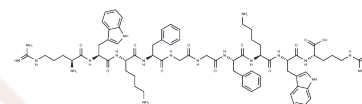
Formula: C₆₈H₉₄N₂₀O₁₁

Molecular Weight: 1367.60

Keep away from moisture

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	RP-832c is a synthetic analog of a host defense peptide (HDP) that targets the mannose receptor CD206 on M2-polarized macrophages with a K _d of 3.5 μM. Upon binding to CD206, RP-832c induces significant conformational changes in the receptor, activating signaling pathways that lead to rapid apoptosis of CD206-positive M2 macrophages and their repolarization to the M1 phenotype. Treatment with RP-832c significantly reduces CD206 gene expression in M2 macrophages and temporarily increases the expression of the M1 macrophage marker TNF-α. RP-832c is applicable for research on T-cell lymphomas (CTCL) and idiopathic pulmonary fibrosis (IPF).
Targets(IC50)	Apoptosis, TNF
In vitro	RP-832c exhibits dose-dependent inhibition of M2-polarized bone marrow-derived macrophages (BMDM) within a concentration range of 0-100 μM, with an IC ₅₀ of 6.184 μM. It shows minimal cytotoxicity towards M1-polarized macrophages and no cytotoxicity to the human fetal lung fibroblast cell lines MRC5 and IMR9. At 10 μM for 24 hours, RP-832c significantly reduces CD206 expression in M2 macrophages and temporarily increases TNF-α expression.
In vivo	RP-832c, administered via intraperitoneal injection once daily for 10 days, inhibits tumor growth in the tumor microenvironment of cutaneous T-cell lymphoma by inducing the transition of immunosuppressive M2 macrophages to antitumor M1 macrophages. Additionally, RP-832c (5-10 mg/kg, subcutaneous injection, once daily for 21 days) demonstrates significant preventive and therapeutic effects in a mouse model of pulmonary fibrosis.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.7312 mL	3.656 mL	7.3121 mL
5 mM	0.1462 mL	0.7312 mL	1.4624 mL
10 mM	0.0731 mL	0.3656 mL	0.7312 mL
50 mM	0.0146 mL	0.0731 mL	0.1462 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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