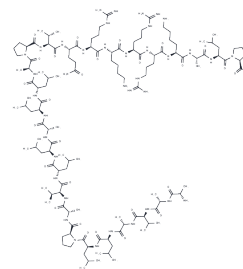


SN52

Chemical Properties

CAS No. : 1071173-56-2
 Formula: C128H230N38O28
 Molecular Weight: 2749.486
 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	SN52 is a powerful, competitive, and cell-permeable inhibitor of NF-κB2. It is a variant of the SN50 peptide. SN52 effectively prevents the nuclear translocation of p52-RelB heterodimers, exhibiting a robust radiosensitization effect on prostate cancer cells. This compound holds significant potential for cancer research purposes.
Targets(IC50)	NF-κB
In vitro	SN52 (40 µg/mL; 30 mins before DMXAA) effectively prevents DMXAA-induced nuclear migration of RelB in BMDCs[1] without affecting the canonical NF-κB signaling pathway. In DCs from irradiated tumors, SN52 negates the intensified nuclear relocation of RelB in activated DC cells[1]. Additionally, when pre-treated (40 µg/mL; 30 mins prior) and co-cultured with both irradiated and non-irradiated MC38 cells, SN52 impedes the non-canonical NF-κB pathway and elevates Ifn-β expression in BMDCs influenced by irradiated tumor cells[1].
In vivo	SN52, administered via intrathecal injection at a dosage of 40 µg/ml on days -1, 1, and 3 during a 20Gy radiation course, synergistically enhances the antitumor immune responses of dendritic cells (DCs) and CD8+ T cells when combined with ionizing radiation (IR), leading to a more effective reduction in tumor burden in a tumor mouse model compared to IR treatment alone. This combination also induces non-canonical NF-κB inhibition, further potentiating IR's antitumor efficacy.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3637 mL	1.8185 mL	3.637 mL
5 mM	0.0727 mL	0.3637 mL	0.7274 mL
10 mM	0.0364 mL	0.1819 mL	0.3637 mL
50 mM	0.0073 mL	0.0364 mL	0.0727 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

Yong Xu, et al. SN52, a novel nuclear factor- κ B inhibitor, blocks nuclear import of RelB:p52 dimer and sensitizes prostate cancer cells to ionizing radiation. *Mol Cancer Ther*

Yuzhu Hou, et al. Non-canonical NF- κ B Antagonizes STING Sensor-Mediated DNA Sensing in Radiotherapy. *Immunity*. 2018 Sep 18;49(3):490-503.e4

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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