

SN50 acetate (213546-53-3 free base)

Chemical Properties

CAS No. :

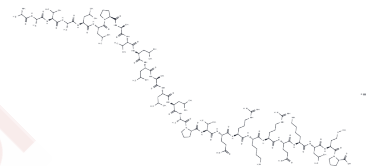
Formula: C131H234N36O31S

Molecular Weight: 2841.55

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	SN50 acetate is a cell permeable inhibitor of NF-κB translocation.
Targets(IC50)	NF-κB
In vitro	Pretreatment with SN50 acetate results in a significant reduction in amount of PI-positive cells at 12, 24, and 48 h time-point post TBI compared with vehicle-treated groups[1]. Topical SN50 acetate suppresses nuclear factor-κB activation in local cells and reduces the incidence of epithelial defects/ulceration in healing corneas. Myofibroblast generation, macrophage invasion, activity of matrix metalloproteinases, basement membrane destruction, and expression of cytokines are all decreased in treated corneas compared with controls[2]. Treating the human gastric cancer cells SGC7901 with SN50 acetate could significantly enhance the effects of LY294002 on inducing cell death after 24 h[3]. SN50 can inhibit translocation of NF-κB and production of inflammatory cytokines that are implicated in lipopolysaccharide (LPS)-induced lung injury[4].
In vivo	Treatment with SN50 acetate accelerates the recovery of motor functional outcome from 1st to 4th day. Animals subjected to SN50 acetate pretreatment demonstrate a significant decrease in the visuospatial learning latencies relative to the control group at 7 and 8 days post-TBI. Pretreatment with SN50 acetate results in a significant reduction of NF-κB p65 protein levels from 6 to 48 h post-TBI and TNF-α protein levels from 12 to 48 h post-TBI[1].

Solubility Information

Solubility	H2O: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3519 mL	1.7596 mL	3.5192 mL
5 mM	0.0704 mL	0.3519 mL	0.7038 mL
10 mM	0.0352 mL	0.176 mL	0.3519 mL
50 mM	0.007 mL	0.0352 mL	0.0704 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

- Sun Y X , Dai D K , Liu R , et al. Therapeutic effect of SN50, an inhibitor of nuclear factor- κ B, in treatment of TBI in mice[J]. *Neurological Sciences*, 2013, 34(3):345-355.
- Szymura S . Therapeutic Effect of Topical Administration of SN50, an Inhibitor of Nuclear Factor- κ B, in Treatment of Corneal Alkali Burns in Mice[J]. *American Journal of Pathology*, 2005, 166(3):1393-1403.
- Zhao K , Zhu B S , Gong W , et al. SN50 enhances the effects of LY294002 on cell death induction in gastric cancer cell line SGC7901[J]. *Archives of Medical Science Ams*, 2013, 9:990-998.
- Chian C F , Chiang C H , Chuang C H , et al. Inhibitor of nuclear factor- κ B, SN50, attenuates lipopolysaccharide-induced lung injury in an isolated and perfused rat lung model[J]. *Translational Research*, 2014, 163(3):211-220.

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