

SN50

Chemical Properties

CAS No.:	213546-53-3
Formula:	C129H230N36O29S
Molecular Weight:	2781.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	SN50 is a cell permeable NF- κ B translocation inhibitor.
Targets(IC ₅₀)	NF- κ B: None
In vitro	Compared with vehicle-treated groups, pretreatment with SN50 results in a significant reduction in amount of PI-positive cells at 12, 24, and 48 h time-point post TBI [1]. Local SN50 inhibits the activation of nuclear factor- κ B in local cells and reduces the occurrence of epithelial defects/ulcers during corneal healing. 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 could significantly enhance the effects of LY294002 on inducing cell death after 24 h[3]. SN50 can inhibit translocation of NF- κ B and production of inflammatory cytokines that are implicated in lipopolysaccharide (LPS)-induced lung injury[4].
In vivo	SN50 accelerates the recovery of motor functional outcome from 1st to 4th day. Animals subjected to SN50 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 results in a significant reduction of NF- κ B 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: 50 mg/mL (17.98 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.36 mL	1.798 mL	3.595 mL
5 mM	0.072 mL	0.36 mL	0.719 mL
10 mM	0.036 mL	0.18 mL	0.36 mL
50 mM	0.007 mL	0.036 mL	0.072 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Sun YX, et al. Therapeutic effect of SN50, an inhibitor of nuclear factor- κ B, in treatment of TBI in mice. *Neurol Sci.* 2013 Mar;34(3):345-55.
2. Saika S, et al. Therapeutic effect of topical administration of SN50, an inhibitor of nuclear factor-kappaB, in treatment of corneal alkali burns in mice. *Am J Pathol.* 2005 May;166(5):1393-403.
3. Zhao K, et al. SN50 enhances the effects of LY294002 on cell death induction in gastric cancer cell line SGC7901. *Arch Med Sci.* 2013 Dec 30;9(6):990-8.
4. Chian CF, et al. Inhibitor of nuclear factor- κ B, SN50, attenuates lipopolysaccharide-induced lung injury in an isolated and perfused rat lung model. *Transl Res.* 2014 Mar;163(3):211-20.

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