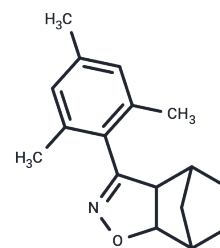


SN 2

## Chemical Properties

CAS No. : 823218-99-1  
 Formula: C<sub>17</sub>H<sub>21</sub>NO  
 Molecular Weight: 255.35  
 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	SN 2 is a novel and potent TRPML3 ion channel activator (EC <sub>50</sub> = 1.13 μM). SN 2 also shares a similar antiviral effect against DENV2 and ZIKV.
Targets (IC <sub>50</sub> )	Anti-infection, TRP/TRPV Channel
In vitro	When activated with 10 μM SN-2, at -80 mV, the conductance of the TRPML3 channel is approximately 10 pS. TRPML3-expressing HEK293 cells are perfused with a series starting with compound alone (in SBS), with compound in ELS, and finally with ELS alone. SF-24 is one of the least effective compounds, and SN-2 is one of the most active ones. SN-2 has a similar synergistic effect, also reaching up-to 10-fold enhancement of the combined response when compared with the individual responses, reaching average current densities of up to 3 nA/pF at 80 mV. Dominant negative TRPML3 (D458K) is highly effective in eliminating SN-2-induced activity in epidermal melanocytes, suggesting that SN-2 activates a channel that is not responsive in presence of TRPML3 (D458K).

## Solubility Information

Solubility	DMSO: 16.67 mg/mL (65.28 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.83 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.9162 mL	19.581 mL	39.1619 mL
5 mM	0.7832 mL	3.9162 mL	7.8324 mL
10 mM	0.3916 mL	1.9581 mL	3.9162 mL
50 mM	0.0783 mL	0.3916 mL	0.7832 mL

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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

Grimm C, et al. Small molecule activators of TRPML3. Chem Biol. 2010 Feb 26;17(2):135-48.

Zhiqiang Xia, et al. ML-SA1, a selective TRPML agonist, inhibits DENV2 and ZIKV by promoting lysosomal acidification and protease activity. Antiviral Res. 2020 Aug 26;104922.

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