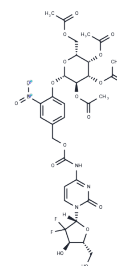


## SSK1

## Chemical Properties

CAS No. :	2629250-69-5
Formula:	C <sub>31</sub> H <sub>34</sub> F <sub>2</sub> N <sub>4</sub> O <sub>18</sub>
Molecular Weight:	788.61
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	SSK1 is a compound that selectively kills senescent cells and is a precursor for $\beta$ -galactosidase, which can reduce the inflammatory response of the body. SSK1 can activate the phosphorylation of p38 MAPK and MKK3/MKK6 in senescent cells, and promote mitochondrial DNA damage in senescent cells.
Targets(IC50)	Apoptosis, p38 MAPK
In vitro	SSK1 (0.5 $\mu$ M; 12-72 h) is activated by lysosomal $\beta$ -galactosidase, selectively kills senescent cells by activating p38 MAPK, and inducing apoptosis[1].
In vivo	Lung-injured mice (3-6 months old) received intratracheal administration of bleomycin (1.5 mg/kg) and were subjected to intraperitoneal injection of SSK1 (0.5 mg/kg) or vehicle (DMSO) for two consecutive days each week for 4 weeks. The results indicate that SSK1 can eliminate SA- $\beta$ -gal-positive senescent cells and reduce aging-related markers in vivo[1].

## Solubility Information

Solubility	DMSO: 245 mg/mL (310.67 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: 5 mg/mL (6.34 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	1.2681 mL	6.3403 mL	12.6805 mL
5 mM	0.2536 mL	1.2681 mL	2.5361 mL
10 mM	0.1268 mL	0.634 mL	1.2681 mL
50 mM	0.0254 mL	0.1268 mL	0.2536 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

Yusheng Cai, et al. Elimination of senescent cells by  $\beta$ -galactosidase-targeted prodrug attenuates inflammation and restores physical function in aged mice. *Cell Res.* 2020 Jul;30(7):574-589.

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