

Product Data Sheet

Product Name: SSK1
Cat. No.: GC63202

Chemical Properties

Cas. No. 2629250-69-5

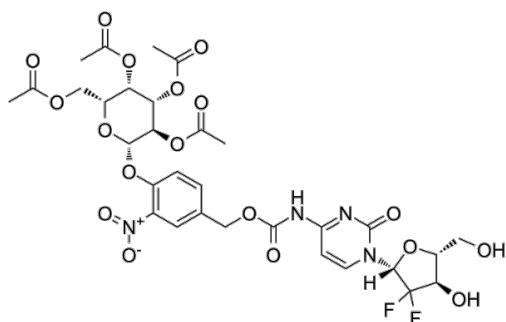
Formula $C_{31}H_{34}F_2N_4O_{18}$ M.Wt 788.61

Solubility DMSO : 200 mg/mL (253.61 mM; Storage 4°C, away from moisture and light
Need ultrasonic)

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the
tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or
Condition blue ice upon request.

Structure



Background

SSK1, a senescence-specific killing compound, is a β -galactosidase-targeted prodrug attenuates inflammation. SSK1 is activated by lysosomal β -galactosidase and selectively killed senescent cells through the activation of p38 MAPK and induction of apoptosis[1].

SSK1 (0.5 μ M; 12-72 hours) activates the phosphorylation levels of both p38 MAPK and MKK3/MKK6

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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in senescent cells. SSK1 kills senescent cells through the activation of the p38 MAPK signaling pathway. SSK1 is able to induce mitochondrial DNA damage in senescent cells[1]. SSK1 (0.01-1 μ M; 3 days) selectively and potently eliminates β -galactosidase-positive senescent cells within a wide therapeutic window[1].

SSK1 (0.5 mg/kg; i.p.; two days every week; for four weeks) could eliminate senescent cells and decrease senescence-associated markers in lung-injured mice[1]. In aged mice (20-month-old), SSK1 (0.5 mg/kg; 3 days every 2 weeks for 8 weeks) effectively clears senescent cells in different tissues, decreases the senescence- and age-associated gene signatures, attenuates low-grade local and systemic inflammation, and restores physical function[1].

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

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