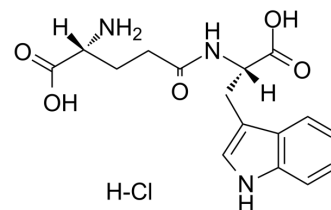


Gotolimod hydrochloride

Cat. No.:	HY-14743B
Molecular Formula:	C ₁₆ H ₂₀ ClN ₃ O ₅
Molecular Weight:	369.8
Target:	Bacterial; STAT
Pathway:	Anti-infection; JAK/STAT Signaling; Stem Cell/Wnt
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 150 mg/mL (405.62 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7042 mL	13.5208 mL	27.0416 mL
	5 mM	0.5408 mL	2.7042 mL	5.4083 mL
	10 mM	0.2704 mL	1.3521 mL	2.7042 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Gotolimod hydrochloride (SCV 07 hydrochloride), an immunomodulating peptide with antimicrobial activity, significantly increases the efficacy of antituberculosis therapy, stimulates thymic and splenic cell proliferation, and improves macrophage function. Gotolimod hydrochloride (SCV 07 hydrochloride) inhibits STAT3 signaling and modulates the duration and severity of oral mucositis in animal models that received radiation or a combination of radiation and Cisplatin. Gotolimod hydrochloride (SCV 07 hydrochloride) is also a potential therapeutic for recurrent genital herpes simplex virus type 2 (HSV-2)^{[1][2][3]}.

IC₅₀ & Target

STAT3

In Vivo

Gotolimod (SCV-07) hydrochloride (oral gavage or subcutaneous injection, 100 µg/kg, 5 days) reduces experimental recurrent genital HSV-2 disease by oral administration, more importantly, oral SCV07 after fasting shows a greater reduction in incidence and severity than SCV-07 without fasting in female hartley guinea pigs^[1].

Gotolimod (SCV-07) hydrochloride (subcutaneous injection, once or twice a day from days 1 to 20, 100 µg/kg) can reduce the severity and duration of acute and split radiation-induced oral mucositis (OM) and short the duration of ulcerative OM in male LVG golden Syrian Hamsters^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female Hartley guinea pigs (250-300 g) infected HSV-2 ^[1]
Dosage:	100 µg/kg
Administration:	Oral gavage or subcutaneous injection; 5 days
Result:	Reduced incidence of lesions from 55% (one week before treatment) to only 18% by oral administration, and showed no significant reduction in disease by subcutaneous injection of SCV-07.
Animal Model:	Male LVG golden Syrian Hamsters weighing approximately 80 g with radiation-induced mucositis ^[3]
Dosage:	10, 100 µg/kg or 1 mg/kg
Administration:	Subcutaneous injection; once or twice a day from days 1 to 20
Result:	<p>Showed a peak mucositis of 3.0 on day 18 in the control group compared to only 2.2 in the test group, and the mucositis score in the SCV-07 treated hamsters was only 6.3% compared to 28.1% in the control group at dose of 100 µg/kg.</p> <p>Significantly decreased the severity and duration of oral mucositis (OM) at dose of 10 µg/kg, 100 µg/kg or 1 mg/kg.</p>

REFERENCES

- [1]. Rose WA 2nd, et al. An immunomodulating dipeptide, SCV-07, is a potential therapeutic for recurrent genital herpes simplex virus type 2 (HSV-2). *Int J Antimicrob Agents*. 2008 Sep;32(3):262-6.
- [2]. Geiger JL, et al. The STAT3 pathway as a therapeutic target in head and neck cancer: Barriers and innovations. *Oral Oncol*. 2016 May;56:84-92.
- [3]. Watkins B, et al. Attenuation of radiation- and chemoradiation-induced mucositis using gamma-D-glutamyl-L-tryptophan (SCV-07). *Oral Dis*. 2010 Oct;16(7):655-60.

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

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