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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Succinobucol

Cat. No.: HY-14937

CAS No.: 216167-82-7

Molecular Formula: $C_{35}H_{52}O_5S_2$

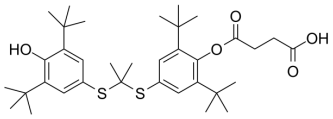
Molecular Weight: 616.91

Target: Reactive Oxygen Species

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (162.10 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.6210 mL	8.1049 mL	16.2098 mL
5 mM	0.3242 mL	1.6210 mL	3.2420 mL
10 mM	0.1621 mL	0.8105 mL	1.6210 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Succinobucol is a phenolic antioxidant with anti-inflammatory and antiplatelet effects.

In Vitro

Succinobucol (10, 50, 100 μM) causes a dose-dependent reduction in collagen-induced platelet aggregation in rabbit whole blood. Succinobucol also causes a significant reduction in whole blood aggregation in response to ADP. Succinobucol (10, 100 μM) significantly lowers the relaxation to X/XO[1]. Succinobucol significantly prevents 3-NP-induced loss of SH-SY5Y cell viability, generation of reactive oxygen species, and decrease of ΔΨm. Succinobucol does not protect against 3-NP-induced inhibition of mitochondrial complex II activity, pointing to the mitigation of secondary events resultant from mitochondrial complex II inhibition. Succinobucol significantly increases (50 %) the levels of GSH in SH-SY5Y cells, which is paralleled by significant increases in glutamate cysteine ligase messenger RNA (mRNA) expression and activity[2]. Succinobucol effectively

	exhibits superior inhibitory effects on cell migration and invasion activities, VCAM-1 expression and cell-cell binding of RAW 264.7 to 4T1 cells. Succinobucol also shows inhibitory effect on VCAM-1 expression in 4T1 cells and cell-cell binding of RAW 264.7 to 4T1 cancer cells[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Succinobucol (50, 100, and 150 mg/kg, i.v.) has no significant effect on either heart rate or MAP, but the blood removed 15 minutes after the final injection of succinobucol shows significantly less aggregation in response to collagen at both 5 μg/mL and 20 μg/mL in rats[1]. Succinobucol (40 mg/kg) by tail injection significantly reduces the average number of metastatic nodules in lung metastatic breast cancer mice[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [3]	The cytotoxicity of Succinobucol is determined in the metastatic 4T1 breast cancer cells. Cells are added to 96-well plates at 6×10^3 cells/well and cultured overnight. Then, Succinobucol, SCB and the PCD polymer (equivalent concentration to SCB) are respectively added to each well with SCB concentrations ranging from 4 ng/mL to 40 μg/mL. Cells without any treatment are performed as negative control. Thereafter, cells are incubated for further 48 h, and the cell viability is measured by MTT assay method. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Administration [3]	Mice are injected with 2×10^5 4T1-luc cells per mouse to generate the lung metastatic breast cancer model. After the inoculation, mice are divided into three groups (n=4), and respectively treated with saline, SCB solution and Succinobucol (40 mg/kg) by tail injection every three days. At day 12, the formation of lung metastasis is determined by in vivo bioluminescence measurements. Then, mice are autopsied and the lung tissues are removed. In each lung tissue, the visually detected metastatic nodules are counted. The inhibition of lung metastasis is calculated as the average metastatic nodules in Succinobucol or SCB group compared to that in saline group. Moreover, the histological examination is performed by H&E staining to detect the metastatic foci in the lungs. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Houston SA, et al. An investigation of the antiplatelet effects of succinobucol (AGI-1067). Platelets. 2017 May;28(3):295-300.

[2]. Colle D, et al. Succinobucol, a Lipid-Lowering Drug, Protects Against 3-Nitropropionic Acid-Induced Mitochondrial Dysfunction and Oxidative Stress in SH-SY5Y Cells via Upregulation of Glutathione Levels and Glutamate Cysteine Ligase Activity. Mol Neurobio

[3]. Dan Z, et al. A pH-Responsive Host-guest Nanosystem Loading Succinobucol Suppresses Lung Metastasis of Breast Cancer. Theranostics. 2016 Jan 25;6(3):435-45.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA