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Lieferung & Zahlungsart

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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

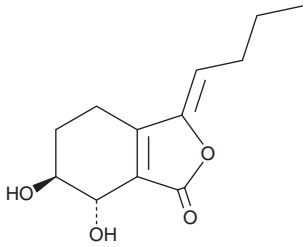
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Senkyunolide I

Item No. 35649

CAS Registry No.:	94596-28-8
Formal Name:	(3Z,6R,7R)-*rel*-3-butylidene-4,5,6,7-tetrahydro-6,7-dihydroxy-1(3H)-isobenzofuranone
MF:	$C_{12}H_{16}O_4$
FW:	224.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 274 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Ligusticum chuanxiong* Hort.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Senkyunolide I is supplied as a solid. A stock solution may be made by dissolving the senkyunolide I in the solvent of choice, which should be purged with an inert gas. Senkyunolide I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of senkyunolide I in these solvents is approximately 25, 10, and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of senkyunolide I can be prepared by directly dissolving the solid in aqueous buffers. The solubility of senkyunolide I in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Senkyunolide I is a phthalide that has been found in *L. chuanxiong* and has diverse biological activities.[1-4] It inhibits TNF-α-induced NF-κB reporter gene expression in HEK293 cells and reduces LPS-induced IL-8 and IL-6 production in THP-1 cells when used at a concentration of 100 µM.[1] *In vivo*, senkyunolide I (32 mg/kg) reduces acetic acid-induced writhing and increases the latency to paw withdrawal in the hot plate test in mice.[3] Senkyunolide I (36 mg/kg, i.p.) increases survival, decreases plasma levels of TNF-α, IL-1β, and IL-6, and protects against cognitive dysfunction in a mouse model of sepsis induced by cecal ligation and puncture (CLP).[4]

References

1. Jiang, M., Zhou, M., Han, Y., *et al.* Identification of NF-κB Inhibitors in Xuebijing injection for sepsis treatment based on bioactivity-integrated UPLC-Q/TOF. *J. Ethnopharmacol.* **147(2)**, 426-433 (2013).
2. Huang, Y., Wu, Y., Yin, H., *et al.* Senkyunolide I: A review of its phytochemistry, pharmacology, pharmacokinetics, and drug-likeness. *Molecules* **28(8)**, 3636 (2023).
3. Wang, Y.-H. Effect and mechanism of senkyunolide I as an anti-migraine compound from *Ligusticum chuanxiong*. *J. Pharm. Pharmacol.* **63(2)**, 261-266 (2010).
4. Xie, J., Zhao, Z.-Z., Li, P., *et al.* Senkyunolide I protects against sepsis-associated encephalopathy by attenuating sleep deprivation in a murine model of cecal ligation and puncture. *Oxid. Med. Cell. Longev.* 6647258 (2021).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM