

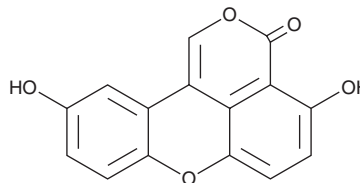
PRODUCT INFORMATION



Sparstolonin B

Item No. 33080

CAS Registry No.: 1259330-61-4
Formal Name: 4,10-dihydroxy-3H-pyrano[3,4,5-kl]xanthen-3-one
MF: C₁₅H₈O₅
FW: 268.2
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Sparstolonin B is supplied as a solid. A stock solution may be made by dissolving the sparstolonin B in the solvent of choice, which should be purged with an inert gas. Sparstolonin B is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

Description

Sparstolonin B is an isocoumarin that has been found in *Spaganium stoloniferum* and has diverse biological activities.¹⁻⁴ It inhibits increases in TNF- α , IL-6, and IL-1 β levels induced by the toll-like receptor 4 (TLR4) agonist LPS, TLR2 agonist Pam₃CSK₄ (Item No. 24126), or TLR2/6 agonist FSL-1 (Item No. 24220) but not the TLR3 agonist poly(I:C) or TLR9 agonist ODN1668 in primary mouse macrophages when used at a concentration of 100 μ M.¹ Sparstolonin B (1-10 μ M) reduces HIV-1 p24 antigen levels in the culture supernatant of human peripheral blood mononuclear cells (PBMCs) infected with HIV-1, indicating inhibition of HIV replication.² It induces apoptosis, cell cycle arrest at the G₂/M phase, and production of reactive oxygen species (ROS) in SH-SY5Y neuroblastoma cells when used at a concentration of 10 μ M.³ Sparstolonin B (3 and 9 mg/kg) protects mice from lethal endotoxin shock.⁴

References

1. Liang, Q., Wu, Q., Jiang, J., *et al.* Characterization of sparstolonin B, a chinese herb-derived compound, as a selective toll-like receptor antagonist with potent anti-inflammatory properties. *J. Biol. Chem.* **286**(30), 26470-26479 (2011).
2. Deng, X., Zhang, Y., Jiang, F., *et al.* The chinese herb-derived sparstolonin B suppresses HIV-1 transcription. *Virology* **12**, 108 (2015).
3. Kumar, A., Fan, D., Dipette, D.J., *et al.* Sparstolonin B, a novel plant derived compound, arrests cell cycle and induces apoptosis in N-myc amplified and N-myc nonamplified neuroblastoma cells. *PLoS One* **9**(5), e96343 (2014).
4. Liang, Q., Dong, S., Lei, L., *et al.* Protective effects of Sparstolonin B, a selective TLR2 and TLR4 antagonist, on mouse endotoxin shock. *Cytokine* **75**(2), 302-309 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/11/2022

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