

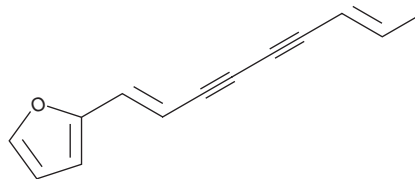
PRODUCT INFORMATION



Atractylodin

Item No. 35033

CAS Registry No.: 55290-63-6
Formal Name: 2-(1E,7E)-1,7-nonadiene-3,5-diyn-1-yl-furan
Synonym: Atractydin
MF: C₁₃H₁₀O
FW: 182.2
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 259, 273, 335, 355 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Atractylodes lancea*



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

Laboratory Procedures

Atractylodin is supplied as a solid. A stock solution may be made by dissolving the atractylodin in the solvent of choice, which should be purged with an inert gas. Atractylodin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of atractylodin in these solvents is approximately 10, 15, and 30 mg/ml, respectively.

Description

Atractylodin is a polyethylene alkyne that has been found in *A. lancea* and has diverse biological activities.¹⁻⁴ It inhibits N-acyl ethanolamine acid amidase (NAAA; IC₅₀ = 2.81 μM for the human enzyme) and increases levels of the endocannabinoids palmitoyl ethanolamide (Item No. 90350) and oleoyl ethanolamide (Item No. 90265) in LPS-stimulated BV-2 microglial cells when used at a concentration of 10 μM.¹ Atractylodin is cytotoxic to CL-6 and HuCC-T1 cholangiocarcinoma cells (IC₅₀s = 41.66 and 38.78 μM, respectively).² Atractylodin (10 mg/kg) increases the gastric emptying rate in mice, an effect that can be blocked by the growth hormone secretagogue receptor (GHS-R) antagonist (D-Lys³)-GHRP-6 (Item No. 36862).³ It decreases pulmonary edema in a mouse model of LPS-induced acute lung injury when administered at doses of 40 and 80 mg/kg.⁴

References

1. Yang, L., Ji, C., Li, Y., *et al.* Natural potent NAAA inhibitor atractylodin counteracts LPS-induced microglial activation. *Front. Pharmacol.* **11**, 577319 (2020).
2. Kotawong, K., Chaijaroenkul, W., Muhamad, P., *et al.* Cytotoxic activities and effects of atractylodin and β-eudesmol on the cell cycle arrest and apoptosis on cholangiocarcinoma cell line. *J. Pharmacol. Sci.* **136(2)**, 51-56 (2018).
3. Bai, Y., Zhao, Y.-H., Xu, J.-Y., *et al.* Atractylodin induces myosin light chain phosphorylation and promotes gastric emptying through ghrelin receptor. *Evid. Based Complement. Alternat. Med.* 2186798 (2017).
4. Tang, F., Fan, K., Wang, K., *et al.* Atractylodin attenuates lipopolysaccharide-induced acute lung injury by inhibiting NLRP3 inflammasome and TLR4 pathways. *J. Pharmacol. Sci.* **136(4)**, 203-211 (2018).

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.

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