

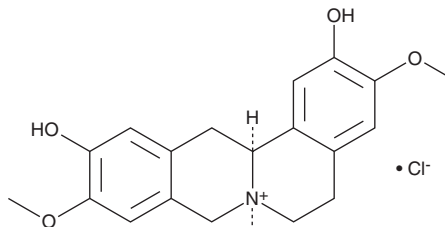
PRODUCT INFORMATION



Phellodendrine (chloride)

Item No. 34802

CAS Registry No.: 104112-82-5
Formal Name: 5,8,13,13aS-tetrahydro-2,11-dihydroxy-3,10-dimethoxy-7S-methyl-6H-dibenzo[a,g]quinolizinium, monochloride
MF: C₂₀H₂₄NO₄ • Cl
FW: 377.9
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Phellodendron chinense*



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

Laboratory Procedures

Phellodendrine (chloride) is supplied as a solid. A stock solution may be made by dissolving the phellodendrine (chloride) in the solvent of choice, which should be purged with an inert gas. Phellodendrine (chloride) is soluble in ethanol.

Description

Phellodendrine is an alkaloid that has been found in *P. amurense* and has diverse biological activities.¹⁻³ It inhibits acetylcholinesterase (AChE) activity (IC₅₀ = 36.51 μM) and scavenges ABTS (Item No. 27317) radicals in cell-free assays when used at concentrations ranging from 12.5 to 100 μM.² Phellodendrine induces apoptosis in PANC-1 pancreatic cancer cells and reduces tumor growth in a PANC-1 mouse xenograft model.¹ It inhibits the local graft versus host (GVH) reaction in irradiated mice receiving splenocyte grafts, indicating immunosuppressant activity, when administered at a dose of 20 mg/kg.³

References

1. Thu, P.M., Zheng, Z.-G., Zhou, Y.-P., *et al.* Phellodendrine chloride suppresses proliferation of KRAS mutated pancreatic cancer cells through inhibition of nutrients uptake via macropinocytosis. *Eur. J. Pharmacol.* **850**, 23-34 (2019).
2. Kim, Y.J., Lim, H.-Y., Kim, Y., *et al.* Phytochemical quantification and the in vitro acetylcholinesterase inhibitory activity of *Phellodendron chinense* and its components. *Molecules* **22**(6), 925 (2017).
3. Mori, H., Fuchigami, M., Inoue, N., *et al.* Principle of the bark of *Phellodendron amurense* to suppress the cellular immune response: Effect of phellodendrine on cellular and humoral immune responses. *Planta Med.* **61**(1), 45-49 (1995).

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, 12/05/2022

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