LKT Laboratories, Inc.

Securinine

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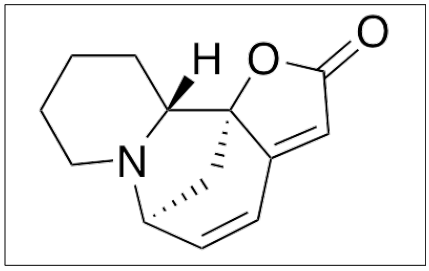
Product Information

Product ID S1609
CAS No. 5610-40-2
Chemical Name Securinan-11-one

Synonym



Formula $C_{13}H_{15}NO_2$
Formula Wt. 217.26
Melting Point 142-143°C
Purity ≥98%
Solubility Soluble in ethanol 16 mg/mL, DMSO 50 mg/mL. Insoluble in water.

Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
S1609	10 mg	$100.30
S1609	25 mg	$214.70
S1609	100 mg	$429.30

Store Temp -20°C
Ship Temp Ambient

Description Securinine is an alkaloid found in *Securinega* leaves and roots that exhibits anticancer, antifungal, neuromodulatory, cognition enhancing, and neuroprotective activities. Securinine induces G1 phase cell cycle arrest, upregulates expression of p53 and Bax, and downregulates expression of Bcl-2, PI3K, mTOR, and p70s6k in breast cancer cells and promyelocytic leukemia cells. Securinine activates p38 MAPK, enhancing monocyte antibacterial activity in vitro as well. This compound also exhibits antimicrobial activity against *Alternaria*, *Curvularia*, and *Helminthosporum*. Additionally, securinine inhibits GABA-A receptors, decreases AChE activity, and suppresses amyloid-ß (Aß)-induced glial inflammatory responses in animal models of Alzheimer's disease, improving cognitive deficits.

References

Han S, Zhang G, Li M, et al. L-securinine induces apoptosis in the human promyelocytic leukemia cell line HL-60 and influences the expression of genes involved in the PI3K/AKT/mTOR signaling pathway. Oncol Rep. 2014 May;31(5):2245-51. PMID: 24676995.

Li M, Han S, Zhang G, et al. Antiproliferative activity and apoptosis-inducing mechanism of L-securinine on human breast cancer MCF-7 cells. Pharmazie. 2014 Mar;69(3):217-23. PMID: 24716413.

Shipman M, Lubick K, Fouchard D, et al. Proteomic and systems biology analysis of monocytes exposed to securinine, a GABA(A) receptor antagonist and immune adjuvant. PLoS One. 2012;7(9):e41278. PMID: 23028424.

Singh AK, Pandey MB, Singh S, et al. Antifungal Activity of Securinine against Some Plant Pathogenic Fungi. Mycobiology. 2008 Jun;36(2):99-101. PMID: 23990741.

Lin X, Jun-Tian Z. Neuroprotection by D-securinine against neurotoxicity induced by beta-amyloid (25-35). Neurol Res. 2004 Oct;26(7):792-6. PMID: 15494124.

Rana S, Gupta K, Gomez J, et al. Securinine induces p73-dependent apoptosis preferentially in p53-deficient colon cancer cells. FASEB. 2010 Jun;24(6):2126-2134. PMID: 20133503.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.