

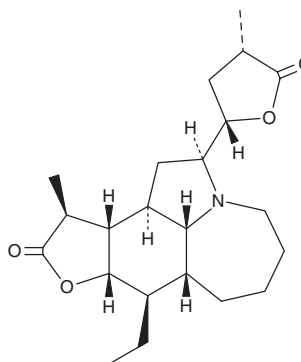
PRODUCT INFORMATION



Tuberostemonine

Item No. 34457

CAS Registry No.: 6879-01-2
Formal Name: (2S,7aR,8R,8aS,11S,11aS,11bR,11cR)-(8-ethyl-dodecahydro-11-methyl-2-[(2S,4S)-tetrahydro-4-methyl-5-oxo-2-furanyl]-furo[2,3-h]pyrrolo[3,2,1-jk][1]benzazepin-10(2H)-one
Synonym: NSC 366235
MF: C₂₂H₃₃NO₄
FW: 375.5
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Sessile stemona* root



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

Laboratory Procedures

Tuberostemonine is supplied as a solid. A stock solution may be made by dissolving the tuberostemonine in the solvent of choice, which should be purged with an inert gas. Tuberostemonine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of tuberostemonine in these solvents is approximately 1 and 10 mg/ml, respectively.

Tuberostemonine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tuberostemonine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Tuberostemonine has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Tuberostemonine is an alkaloid that has been found in *S. tuberosa* and has diverse biological activities.¹⁻³ It exhibits feeding deterrent and repellent activities against *S. littoralis* fifth instar larvae when applied to lettuce leaf disks at concentrations of 0.01 and 0.1 µg/cm², respectively.¹ Tuberostemonine (100 mg/kg) reduces the number of citric acid-induced coughs in guinea pigs.² *In vivo*, tuberostemonine (1-10 mg/kg) decreases bronchoalveolar lavage fluid (BALF) neutrophil and macrophage, but not lymphocyte, infiltration and reduces peribronchial and perivascular inflammatory cell infiltration in a cigarette smoke-induced mouse model of acute lung inflammation.³

References

1. Brem, B., Seger, C., Pacher, T., *et al.* Feeding deterrence and contact toxicity of *Stemona* alkaloids-a source of potent natural insecticides. *J. Agric. Food Chem.* **50**(22), 6383-6388 (2002).
2. Zhou, X., Leung, P.H.H., Li, N., *et al.* Oral absorption and antitussive activity of tuberostemonine alkaloids from the roots of *Stemona tuberosa*. *Planta Med.* **75**(6), 575-580 (2009).
3. Jung, K.-H., Beak, H., Park, S., *et al.* The therapeutic effects of tuberostemonine against cigarette smoke-induced acute lung inflammation in mice. *Eur. J. Pharmacol.* **774**, 80-86 (2016).

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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