

# PRODUCT INFORMATION

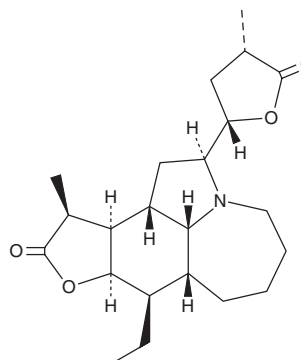


## Neotuberostemonine

Item No. 30116

**CAS Registry No.:** 143120-46-1  
**Formal Name:** (2S,7aR,8R,8aR,11S,11aR,11bS,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  
**Synonyms:** (+)-Neotuberostemonine, Tuberostemonine LG

**MF:** C<sub>22</sub>H<sub>33</sub>NO<sub>4</sub>  
**FW:** 375.5  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Plant/*Stemona japonica*



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

### Laboratory Procedures

Neotuberostemonine is supplied as a crystalline solid. A stock solution may be made by dissolving the neotuberostemonine in the solvent of choice, which should be purged with an inert gas. Neotuberostemonine is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

### Description

Neotuberostemonine is an alkaloid originally isolated from *S. tuberosa* that has diverse biological activities.<sup>1-3</sup> It inhibits LPS-induced increases in inducible nitric oxide synthase (iNOS) protein levels and NO production in RAW 264.7 cells when used at a concentration of 100 μM.<sup>1</sup> Neotuberostemonine (50 μM) inhibits RANKL-induced osteoclast differentiation of RAW 264.7 cells.<sup>2</sup> It reduces the citric acid-induced cough reflex in conscious guinea pigs when administered at a dose of 133 μmol/kg.<sup>3</sup> Neotuberostemonine (40 mg/kg) inhibits pulmonary collagen deposition and fibrosis, as well as bronchoalveolar lavage fluid (BALF) monocyte and lymphocyte infiltration in a mouse model of bleomycin-induced pulmonary fibrosis.<sup>1</sup>

### References

1. Xiang, J., Cheng, S., Feng, T., *et al.* Neotuberostemonine attenuates bleomycin-induced pulmonary fibrosis by suppressing the recruitment and activation of macrophages. *Int. Immunopharmacol.* **36**, 158-164 (2016).
2. Yun, J., Lee, K.Y., and Park, B. Neotuberostemonine inhibits osteoclastogenesis via blockade of NF-κB pathway. *Biochimie* **157**, 81-91 (2019).
3. Chung, H.-S., Hon, P.-M., Lin, G., *et al.* Antitussive activity of *Stemona* alkaloids from *Stemona tuberosa*. *Planta Med.* **69**(10), 914-920 (2003).

#### 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, 05/28/2020

#### 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