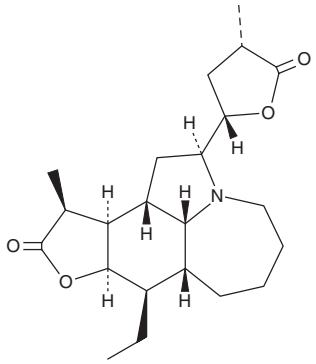
PRODUCT INFORMATION

Neotuberostemonine

Item No. 30116

CAS Registry No.:	143120-46-1
Formal Name:	(2S,7aR,8R,8aR,11S,11aR,11bS,11cR)-8-ethyldodecahydro-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:	$C_{22}H_{33}NO_4$
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.[1-3] 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.[1] Neotuberostemonine (50 µM) inhibits RANKL-induced osteoclast differentiation of RAW 264.7 cells.[2] It reduces the citric acid-induced cough reflex in conscious guinea pigs when administered at a dose of 133 µmol/kg.[3] 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.[1]

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-kB 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).

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