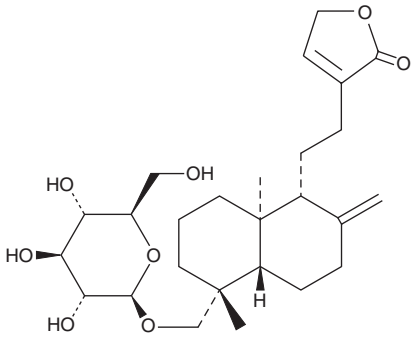
PRODUCT INFORMATION

Neoandrographolide

Item No. 11742

CAS Registry No.:	27215-14-1
Formal Name:	3-[2-[(1R,4aS,5R,8aS)-5-[(β-D-glucopyranosyloxy)methyl]decahydro-5,8a-dimethyl-2-methylene-1-naphthalenyl]ethyl]-2(5H)-furanone
MF:	$C_{26}H_{40}O_8$
FW:	480.6
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Andrographis paniculata*



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

Laboratory Procedures

Neoandrographolide is supplied as a crystalline solid. A stock solution may be made by dissolving the neoandrographolide in the solvent of choice, which should be purged with an inert gas. Neoandrographolide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of neoandrographolide in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Neoandrographolide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, neoandrographolide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Neoandrographolide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Neoandrographolide is one of the principle diterpenoids isolated from *A. paniculata*, a well-recognized medicinal plant in Asia. Extracts from *A. paniculata* have been reported to exert a wide range of therapeutic actions, including immunosuppressant, antithrombotic, anti-inflammatory, antineoplastic, anti-viral, anti-bacterial, anti-diabetic, anti-oxidative stress, antipyretic, anti-edematogenic, and anti-nociceptive activities.[1] Neoandrographolide has been shown to inhibit LPS-induced nitric oxide production in inflammatory macrophages after oral administration to mice (25 mg/kg) or by direct addition to cultured macrophages (IC_{50} = 35.5 µM).[2] At 25 µM, it can reduce VEGF-induced proliferation of human umbilical vein endothelial cells.[3] Neoandrographolide also inhibits the pro-protein convertase furin with an IC_{50} value of 53.5 µM.[4]

References

1. Jarukamjorn, K. and Nemoto, N. Pharmacological aspects of *Andrographis paniculata* on health and its major diterpenoid constituent andrographolide. *J. Health Sci.* **54(4)**, 370-381 (2008).
2. Batkhuu, J., Hattori, K., Takano, F., *et al.* Suppression of NO production in activated macrophages *in vitro* and *ex vivo* by neoandrographolide isolated from Andrographis paniculata. *Biol. Pharm. Bull.* **25(9)**, 1169-1174 (2002).
3. Gong, C., Xu, C., Ji, L., *et al.* A novel semi-synthetic andrographolide analogue A5 inhibits tumor angiogenesis *via* blocking the VEGFR2-p38/ERK1/2 signal pathway. *Biosci. Trends* **7(5)**, 230-236 (2013).
4. Basak, A., Cooper, S., Roberge, A.G., *et al.* Inhibition of proprotein convertases-1, -7 and furin by diterpines of *Andrographis paniculata* and their succinoyl esters. *Biochem. J.* **338(Pt 1)**, 107-113 (1999).

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