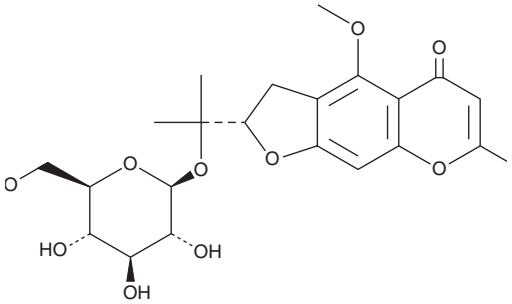
PRODUCT INFORMATION

5-O-Methylvisammioside

Item No. 39250

CAS Registry No.:	84272-85-5
Formal Name:	(2S)-2-[1-(β-D-glucopyranosyloxy)-1-methylethyl]-2,3-dihydro-4-methoxy-7-methyl-5H-furo[3,2-g][1]benzopyran-5-one
Synonym:	4′-O-β-D-glucosyl-5-O-Methylvisamminol
MF:	$C_{22}H_{28}O_{10}$
FW:	452.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Saposhnikovia divaricata* (Turcz.) Schischk



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

Laboratory Procedures

5-O-Methylvisammioside is supplied as a solid. A stock solution may be made by dissolving the 5-O-methylvisammioside in the solvent of choice, which should be purged with an inert gas. 5-O-Methylvisammioside is soluble in acetonitrile and methanol.

Description

5-O-Methylvisammioside is a chromone that has been found in *S. diviaricata* and has diverse biological activities.[1-4] It inhibits the protein-protein interaction between histone H3 and 14-3-3ε and phosphorylation of histone H3, as well as induces cell cycle arrest at the G_2/M phase, in HT-29 colon cancer cells when used at a concentration of 10 µM.[1] 5-O-Methylvisammioside (10-100 µM) inhibits histamine release induced by the mast cell degranulator compound 48/80 (Item No. 22173) in LAD 2 mast cells.[2] It reduces LPS-induced increases in nitric oxide (NO), malondialdehyde (MDA), and nuclear NF-κB levels in BV-2 microglia and decreases immobility time in the tail suspension and forced swim tests in mice.[3] 5-O-Methylvisammioside (400 µg/kg) inhibits perivascular adventitia leukocyte infiltration and improves neurological deficits in a rat model of subarachnoid hemorrhage-induced vasospasm.[4] It has been used as a quality control marker of *S. diviaricata* roots.[5]

References

1. Kang, J.-S., Chin, Y.-W., Lee, K., *et al.* Identification of 4'-*O*-β-D-glucosyl-5-*O*-methylvisamminol as a novel epigenetic suppressor of histone H3 phosphorylation at Ser10 and its interaction with 14-3-3ε. *Bioorg. Med. Chem. Lett.* **24(19)**, 4763-4767 (2014).
2. Jia, Q., Sun, W., Zhang, L., *et al.* Screening the anti-allergic components in *Saposhnikoviae Radix* using high-expression Mas-related G protein-coupled receptor X2 cell membrane chromatography online coupled with liquid chromatography and mass spectrometry. *J. Sep. Sci.* **42(14)**, 2351-2359 (2019).
3. Sun, X., Zhang, T., Zhao, Y., *et al.* The protective effect of 5-O-methylvisammioside on LPS-induced depression in mice by inhibiting the over activation of BV-2 microglia through Nf-κB/IκB-α pathway. *Phytomedicine* **79:153348**, (2020).
4. Chang, C.-Z., Wu, S.-C., Kwan, A.-L., *et al.* 4'-O-β-D-glucosyl-5-O-methylvisamminol, an active ingredient of *Saposhnikovia divaricata*, attenuates high-mobility group box 1 and subarachnoid hemorrhage-induced vasospasm in a rat model. *Behav. Brain Funct.* **11(1)**, 28 (2015).
5. Yang, J.-M., Jiang, H., Dai, H.-L., *et al.* Feeble antipyretic, analgesic, and anti-inflammatory activities were found with regular dose 4'-O-β-D-glucosyl-5-O-methylvisamminol, one of the conventional marker compounds for quality evaluation of Radix Saposhnikoviae. *Pharmacogn. Mag.* **13(49)**, 168-174 (2017).

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
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