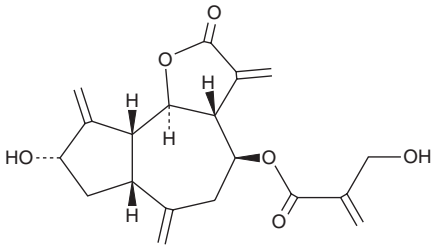
PRODUCT INFORMATION

Cynaropicrin

Item No. 25099

CAS Registry No.:	35730-78-0
Formal Name:	2-(hydroxymethyl)-2-propenoic acid, (3aR,4S,6aR,8S,9aR,9bR)-dodecahydro-8-hydroxy-3,6,9-*tris*(methylene)-2-oxoazuleno[4,5-b]furan-4-yl ester
MF:	$C_{19}H_{22}O_6$
FW:	346.4
Purity:	≥98%
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Cynaropicrin is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. Cynaropicrin is miscible in these solvents.

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

Description

Cynaropicrin is a sesquiterpene lactone originally isolated from artichoke (*C. scolymus*) that has diverse biological activities.[1-5] It inhibits the growth of SKOV3, LOX-IMVI, A549, MCF-7, HCT15, and PC-3 cancer cells (IC_{50}s = 1.1-8.7 µg/ml).[1] Cynaropicrin inhibits hepatitis C virus (HCV) replication in Huh7.5 cells with EC_{50} values ranging from 0.4 to 1.4 µM for genotypes 1a, 1b, 2b, 3a, 4a, 5a, 6a, and 7a.[2] It inhibits release of TNF-α and nitric oxide (NO) from LPS-stimulated RAW264.7 cells (IC_{50}s = 8.24 and 1.1 µM, respectively) as well as LPS-induced lymphocyte proliferation (IC_{50} = 0.9 µM).[3] Cynaropicrin inhibits the growth of *T. cruzi* bloodstream trypomastigotes isolated from infected mice (EC_{50} = 1 µg/ml).[4] It also exhibits antifeedant activity against *S. granarius* beetles, *T. confusum* larvae, and *T. granarium* larvae.[5]

References

1. Elsebai, M.F., Mocan, A., and Atanasov, A.G. Cynaropicrin: A comprehensive research review and therapeutic potential as an anti-hepatitis C virus agent. *Front. Pharmacol.* **7:472**, (2016).
2. Elsebai, M.F., Koutsoudakis, G., Saludes, V., *et al.* Pan-genotypic hepatitis C virus inhibition by natural products derived from the wild egyptian artichoke. *J. Virol.* **90(4)**, 1918-1930 (2015).
3. Cho, J.Y., Baik, K.U., Jung, J.H., *et al. In vitro* anti-inflammatory effects of cynaropicrin, a sesquiterpene lactone, from *Saussurea lappa*. *Eur. J. Pharmacol.* **398(3)**, 399-407 (2000).
4. da Silva, C.F., Batista Dda, G., De Araújo, J.S., *et al.* Activities of psilostachyin A and cynaropicrin against *Trypanosoma cruzi in vitro* and *in vivo*. *Antimicrob. Agents Chemother.* **57(11)**, 5307-5314 (2013).
5. Cis, J., Nowark, G., and Kisiel, W. Antifeedant properties and chemotaxonomic implications of sesquiterpene lactones and syringin from *Rhaponticum pulchrum*. *Biochem. System. Ecol.* **34(12)**, 862-867 (2006).

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