

Product Data Sheet

Product Name: Lobaric Acid

Cat. No.: GC18789

Chemical Properties

Cas. No. 522-53-2

Chemical Name 8-hydroxy-3-methoxy-11-oxo-1-(1-oxopentyl)-6-pentyl-11H-dibenzo[b,e][1,4]dioxepin-7-carboxylic acid

SMILES OC(C(C(O)=O)=C1CCCCC)=CC2=C1OC(C=C(OC)C=C3C(CCCC)=O)=C3C(O2)=O

Formula $C_{25}H_{28}O_8$

M.Wt 456.5

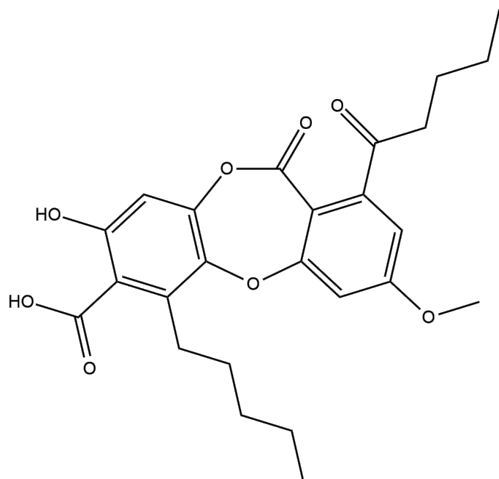
Solubility DMF: Soluble, DMSO: Soluble, Ethanol: Soluble, Methanol: Soluble

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Caution: Product has not been fully validated for medical applications. For research use only.

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Lobaric acid is a depsidone metabolite that has been isolated from *Stereocaulon* lichen species with antioxidant, antiproliferative, antiviral, and enzyme inhibitory activities. It scavenges superoxide radicals in a cell-free assay ($IC_{50} = 97.9 \mu\text{mol}$) and inhibits proliferation in a panel of leukemia, colorectal, gastric, breast, ovarian, prostate, pancreatic, and lung cancer cell lines (EC_{50} s = 15.2-63.9 $\mu\text{g/ml}$). Lobaric acid inhibits protein tyrosine phosphatase 1B (PTP1B; $IC_{50} = 0.87 \mu\text{M}$ for the human recombinant enzyme) and production of 12(S)-HETE by 12(S)-lipoxygenase ($IC_{50} = 28.5 \mu\text{M}$). In vivo, lobaric acid (250 μM) decreases lesion number, but not lesion diameter, in tobacco leaves infected with tobacco mosaic virus (TMV).

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