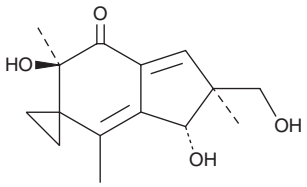
PRODUCT INFORMATION

Illudin S

Item No. 17451

CAS Registry No.:	1149-99-1
Formal Name:	(2'S,3'R,6'R)-2',3'-dihydro-3',6'-dihydroxy-2'-(hydroxymethyl)-2',4',6'-trimethyl-spiro[cyclopropane-1,5'-[5H]inden]-7'(6'H)-one
Synonyms:	Lampterol, NSC 400979, NSC 626369
MF:	$C_{15}H_{20}O_4$
FW:	264.3
Purity:	≥98%
Supplied as:	A light yellow solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Fungi/*Pleurotus lampas*



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

Laboratory Procedures

Illudin S is supplied as a light yellow solid. A stock solution may be made by dissolving the illudin S in the solvent of choice, which should be purged with an inert gas. Illudin S is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Illudin S is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Illudins are fungal sesquiterpenes that, through their unique DNA alkylating actions, have anticancer potential.[1,2] Illudin S is a cytotoxic illudin that is converted, intracellularly, to metabolites that cause a complete block of cell cycling at the G_1-S phase interface, particularly in myeloid and T-lymphocyte leukemia cells (IC_{50} = 6-11 nM).[1] T-lymphocyte leukemia CEM cells that are resistant to doxorubicin (Item No. 15007), epipodophyllotoxins, and 1-β-D-arabinofuranosylcytosine display only 2-fold increased resistance to illudin S.[1] Illudin S metabolites induce DNA damage that is not repaired by the processes that counter conventional DNA alkylating agents.[2-4]

References

1. Kelner, M.J., McMorris, T.C., Beck, W.T., *et al. Cancer Res.* **47(12)**, 3186-3189 (1987).
2. Schobert, R., Knauer, S., Seibt, S., *et al. Curr. Med. Chem.* **18**, 790-807 (2011).
3. Kelner, M.J., McMorris, T.C., Estes, L., *et al. Biochem. Pharmacol.* **48**, 403-409 (1994).
4. Jaspers, N.G.J., Raams, A., Kelner, M.J., *et al. DNA Repair (Amst)* **1(12)**, 1027-1038 (2002).

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