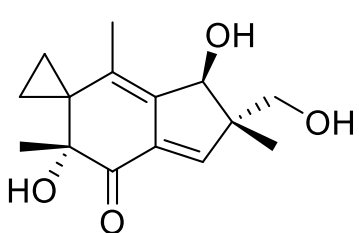


Product data sheet



MedKoo Cat#: 598259 Name: Illudin S CAS: 1149-99-1 Chemical Formula: C ₁₅ H ₂₀ O ₄ Exact Mass: 264.1362 Molecular Weight: 264.321	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Illudin S is a fungal sesquiterpene that, through their unique DNA alkylating actions, have anticancer potential. Illudin S is a cytotoxic illudin that is converted, intracellularly, to metabolites that cause a complete block of cell cycling at the G1-S phase interface, particularly in myeloid and T-lymphocyte leukemia cells (IC₅₀ = 6-11 nM). 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. Illudin S metabolites induce DNA damage that is not repaired by the processes that counter conventional DNA alkylating agents.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	50.0	189.16

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.78 mL	18.92 mL	37.83 mL
5 mM	0.76 mL	3.78 mL	7.57 mL
10 mM	0.38 mL	1.89 mL	3.78 mL
50 mM	0.08 mL	0.38 mL	0.76 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Kanao R, Kawai H, Taniguchi T, Takata M, Masutani C. RFWD3 and translesion DNA polymerases contribute to PCNA modification-dependent DNA damage tolerance. *Life Sci Alliance*. 2022 Jul 29;5(12):e202201584. doi: 10.26508/lsa.202201584. PMID: 35905994; PMCID: PMC9348633.

2. Goulielmaki E, Tsekrekou M, Batsiotos N, Ascensão-Ferreira M, Ledaki E, Stratigi K, Chatzinikolaou G, Topalis P, Kosteas T, Altmüller J, Demmers JA, Barbosa-Morais NL, Garinis GA. The splicing factor XAB2 interacts with ERCC1-XPF and XPG for R-loop processing. *Nat Commun*. 2021 May 26;12(1):3153. doi: 10.1038/s41467-021-23505-1. PMID: 34039990; PMCID: PMC8155215.

In vivo study

TBD

7. Bioactivity

Biological target:

Product data sheet



Illudin S, a cytotoxic Illudin, is a natural sesquiterpene with strong anti-tumour and antiviral activities. Illudin S has genotoxic activities. Illudin S blocks the G1-S phase interface of the cell cycle in human leukemia cells.

In vitro activity

Illudin S and its derivatives induce alkyl DNA adducts, which are repaired by transcription-coupled nucleotide excision repair (TC-NER).

Reference: Life Sci Alliance. 2022 Jul 29;5(12):e202201584. <https://pubmed.ncbi.nlm.nih.gov/35905994/>

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.