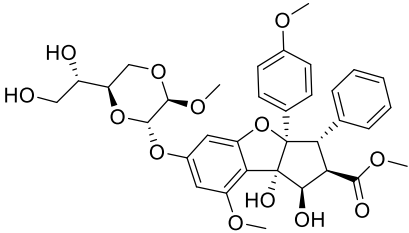


Product data sheet



MedKoo Cat#: 333063 Name: Episilvestrol CAS#: 697235-39-5 Chemical Formula: C ₃₄ H ₃₈ O ₁₃ Exact Mass: 654.2312 Molecular Weight: 654.665	
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:

Episilvestrol, a derivative of silvestrol, is isolated from the fruits and twigs of *Aglaia silvestris*, Episilvestrol exhibited potent in vitro cytotoxic activity.

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

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.53 mL	7.64 mL	15.27 mL
5 mM	0.31 mL	1.53 mL	3.05 mL
10 mM	0.15 mL	0.76 mL	1.53 mL
50 mM	0.03 mL	0.15 mL	0.31 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

Hawkins BC, Lindqvist LM, Nhu D, Sharp PP, Segal D, Powell AK, Campbell M, Ryan E, Chambers JM, White JM, Rizzacasa MA, Lessene G, Huang DC, Burns CJ. Simplified silvestrol analogues with potent cytotoxic activity. *ChemMedChem*. 2014 Jul;9(7):1556-66. doi: 10.1002/cmdc.201400024. Epub 2014 Mar 27. PMID: 24677741.

In vivo study

Chambers JM, Lindqvist LM, Webb A, Huang DC, Savage GP, Rizzacasa MA. Synthesis of biotinylated episilvestrol: highly selective targeting of the translation factors eIF4A/II. *Org Lett*. 2013 Mar 15;15(6):1406-9. doi: 10.1021/ol400401d. Epub 2013 Mar 5. PMID: 23461621.

7. Bioactivity

Biological target:

Apoptosis Inducer

Product data sheet



In vitro activity

Episilvestrol has limited plasma membrane permeability and is metabolized in liver microsomes in a manner consistent with that reported for Silvestro. In addition, a series of analogues of these compounds were prepared where the complex pseudo-sugar at C6 has been replaced with chemically simpler moieties to improve drug-likeness. Selected compounds from this work possess excellent activity in biochemical and cellular translation assays with potent activity against leukemia cell lines.

Reference: Hawkins BC, Lindqvist LM, Nhu D, Sharp PP, Segal D, Powell AK, Campbell M, Ryan E, Chambers JM, White JM, Rizzacasa MA, Lessene G, Huang DC, Burns CJ. Simplified silvestrol analogues with potent cytotoxic activity. ChemMedChem. 2014 Jul;9(7):1556-66. doi: 10.1002/cmde.201400024. Epub 2014 Mar 27. PMID: 24677741.

In vivo activity

It is demonstrated that eukaryotic initiation factors eIF4A/II were the only proteins detected to bind silvestrol (1) and biotinylated episilvestrol (9) by affinity purification. This study demonstrates the remarkable selectivity of these promising chemotherapeutics.

Reference: Chambers JM, Lindqvist LM, Webb A, Huang DC, Savage GP, Rizzacasa MA. Synthesis of biotinylated episilvestrol: highly selective targeting of the translation factors eIF4A/II. Org Lett. 2013 Mar 15;15(6):1406-9. doi: 10.1021/ol400401d. Epub 2013 Mar 5. PMID: 23461621.

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.