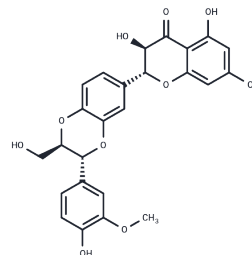


Silibinin

Chemical Properties

CAS No. :	22888-70-6
Formula:	C ₂₅ H ₂₂ O ₁₀
Molecular Weight:	482.44
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Silibinin (Silybin) is the major active constituent of silymarin, a standardized extract of the milk thistle seeds, containing a mixture of flavonolignans consisting of silibinin, isosilibinin, silicristin, silidianin and others. Silibinin itself is a mixture of two diastereomers, silybin A and silybin B, in approximately equimolar ratio. Both in vitro and animal research suggest that silibinin has hepatoprotective (antihepatotoxic) properties that protect liver cells against toxins. Silibinin has also demonstrated in vitro anti-cancer effects against human prostate adenocarcinoma cells, estrogen-dependent and -independent human breast carcinoma cells, human ectocervical carcinoma cells, human colon cancer cells, and both small and nonsmall human lung carcinoma cells.
Targets(IC50)	Reactive Oxygen Species, Autophagy
In vivo	Research indicates that silibinin protects liver cells from toxin-induced damage, serving a hepatoprotective function. In vitro, studies demonstrate that silibinin exhibits anticancer effects against a variety of human cancer cells, including prostate cancer cells, estrogen-dependent/independent breast cancer cells, colorectal cancer cells, cervical cancer cells, and both small and non-small cell lung cancer cells. Silibinin is a mixture of the diastereoisomers silibinin A and silibinin B, approximately in a 1:1 ratio.

Solubility Information

Solubility	DMSO: 16.67 mg/mL (34.55 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0728 mL	10.364 mL	20.728 mL
5 mM	0.4146 mL	2.0728 mL	4.1456 mL
10 mM	0.2073 mL	1.0364 mL	2.0728 mL
50 mM	0.0415 mL	0.2073 mL	0.4146 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

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Sharma G, et al. Anticancer Res, 2003, 23(3B), 2649-2655.

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