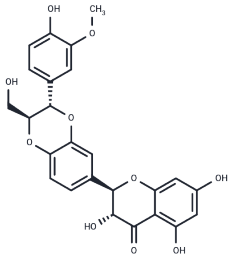
# Data Sheet (Cat.No.TN2211)

TargetMol

## Silybin B

### Chemical Properties



CAS No. : 142797-34-0

Formula: C25H22O10

Molecular Weight: 482.44

Storage: Store at low temperature,Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Silybin B (Silibinin B) is an effective inhibitor of raloxifene 4 '- and 6-glucosalylation, an effective anti-fibrinogenic and anti-oligomeric component of Silymarin, with free radical scavenging activity of 1, 1-diphenyl-2-pyridinyl hydrazine (DPPH), and a protective effect against cisplatin-induced neurotoxicity by alleviating DNA damage and apoptosis. Silybin B can inhibit the growth of human chronic myeloid leukemia K562 cells and induce apoptosis. |
| Targets(IC50) | Apoptosis,Beta Amyloid,Bcr-Abl,JNK,p38 MAPK |
| In vitro | The present study assessed the effects of the diastereoisomers on cell apoptosis, and compared these with their mixture, silybin, in human chronic myeloid leukemia K562 cells. Both isomers showed stronger effects on cell growth inhibition and apoptosis induction than silybin. Compared with Silybin B, silybin A showed higher effects on the production of intracellular reactive oxygen species and Ca2+.[1] |
| In vivo | Silybin B markedly improved the behavioral abnormalities in cisplatin-treated mice and reduced LPO levels while increasing SOD, GSH, and T-AOC in mice brain tissue. Nissl staining and Tunel assay showed that silybin B alleviated cisplatin-induced hippocampal damage.[2] |

### Solubility Information

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|---|---|
| Solubility | DMSO: 225 mg/mL (466.38 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.36 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhang J, et al. A comparison of the diastereoisomers, silybin A and silybin B, on the induction of apoptosis in K562 cells. Nat Prod Commun. 2011;6(11):1653-1656.

Wang XL, et al. Silybin B exerts protective effect on cisplatin-induced neurotoxicity by alleviating DNA damage and apoptosis. J Ethnopharmacol. 2022;288:114938.