

## Seselin

## Chemical Properties

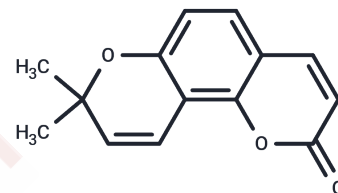
CAS No. : 523-59-1

Formula: C<sub>14</sub>H<sub>12</sub>O<sub>3</sub>

Molecular Weight: 228.24

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Seselin is a natural product from <i>Plumbago zeylanica</i> . Seselin shows anti-inflammatory and antiviral activity.
Targets(IC50)	Antiviral, Antifungal, Immunology/Inflammation related
In vitro	Seselin (10uM) blocked signalling pathways that mediate the classical activation of macrophages in bone marrow-derived macrophages.
In vivo	Seselin (3mg/kg, 10mg/kg, 30mg/kg, iv) ameliorated lung injury and decreased JAK2 phosphorylation level in lung tissue during mouse sepsis.

## Solubility Information

Solubility	DMSO: 45 mg/mL (197.16 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.76 mM), Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3814 mL	21.9068 mL	43.8135 mL
5 mM	0.8763 mL	4.3814 mL	8.7627 mL
10 mM	0.4381 mL	2.1907 mL	4.3814 mL
50 mM	0.0876 mL	0.4381 mL	0.8763 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

Feng L, Sun Y, Song P, Xu L, Wu X, Wu X, Shen Y, Sun Y, Kong L, Wu X, Xu Q. Seselin ameliorates inflammation via targeting Jak2 to suppress the proinflammatory phenotype of macrophages. *Br J Pharmacol*. 2019 Jan;176(2):317-333. doi: 10.1111/bph.14521. Epub 2018 Dec 4. PMID: 30338847; PMCID: PMC6295420.

Nivetha R, Bhuvanagavan S, Muthu Kumar T, Ramanathan K, Janarthanan S. Inhibition of multiple SARS-CoV-2 proteins by an antiviral biomolecule, seselin from *Aegle marmelos* deciphered using molecular docking analysis. *J Biomol Struct Dyn*. 2021 Aug 25:1-12. doi: 10.1080/07391102.2021.1955009. Epub ahead of print. PMID: 34431451.

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