

## Diplacone

## Chemical Properties

CAS No. : 73676-38-7

Formula: C<sub>25</sub>H<sub>28</sub>O<sub>6</sub>

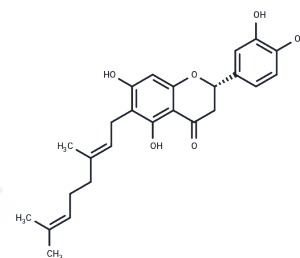
Molecular Weight: 424.49

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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   | Diplacone (DP) is a geranylated flavonoid compound that is naturally found in the fruit of Paulownia tomentosa. Diplacone possesses anti-inflammatory and free radical-scavenging (anti-radical) activity. Diplacone has been investigated for its potential anticancer activity, particularly in studies involving A549 human lung cancer cells, where it demonstrated inhibitory effects on cancer cell growth and survival. |
| Targets(IC50) | Others   |

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.3558 mL | 11.7788 mL | 23.5577 mL |
| 5 mM  | 0.4712 mL | 2.3558 mL  | 4.7115 mL  |
| 10 mM | 0.2356 mL | 1.1779 mL  | 2.3558 mL  |
| 50 mM | 0.0471 mL | 0.2356 mL  | 0.4712 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

Vochyánová Z, et al. Diplacone and mimulone ameliorate dextran sulfate sodium-induced colitis in rats. *Fitoterapia*. 2015 Mar;101:201-7.

Kang MJ, et al. Diplacone Isolated from *Paulownia tomentosa* Mature Fruit Induces Ferroptosis-Mediated Cell Death through Mitochondrial Ca<sup>2+</sup> Influx and Mitochondrial Permeability Transition. *Int J Mol Sci*. 2023 Apr 11;24(8):7057.

Cho JK, et al. Cholinestrase inhibitory effects of geranylated flavonoids from *Paulownia tomentosa* fruits. *Bioorg Med Chem*. 2012 Apr 15;20(8):2595-602.

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