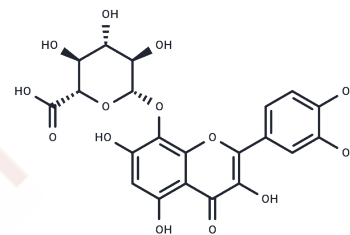


## Hibifolin

### Chemical Properties

CAS No. : 55366-56-8  
 Formula: C<sub>21</sub>H<sub>18</sub>O<sub>14</sub>  
 Molecular Weight: 494.36  
 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	Hibifolin is a flavonol glycoside natural product, is a potential inhibitor of adenosine deaminase (K <sub>i</sub> of 49.92 μM). Hibifolin protects neurons against beta-amyloid-induced neurotoxicity.
Targets(IC50)	Caspase, Antibacterial, Adenosine Deaminase
In vitro	the inhibitory activity of a plant flavonoid, hibifolin on ADA is investigated using enzyme kinetic assay and isothermal titration calorimetry. The inhibitory constant of hibifolin was found to be 49.92 μM and the mode of binding was reversible. Isothermal titration calorimetry showed that the compound binds ADA with binding energy of -7.21 Kcal/mol. The in silico modeling and docking studies showed that the bound ligand is stabilized by hydrogen bonds with active site residues of the enzyme. Hibifolin can act as a potential inhibitor of ADA.

### Solubility Information

Solubility	DMSO: 55 mg/mL (111.25 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 (4.05 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

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	1mg	5mg	10mg
1 mM	2.0228 mL	10.1141 mL	20.2282 mL
5 mM	0.4046 mL	2.0228 mL	4.0456 mL
10 mM	0.2023 mL	1.0114 mL	2.0228 mL
50 mM	0.0405 mL	0.2023 mL	0.4046 mL

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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

Arun K G , Sharanya C S , Sandeep P M , et al. Inhibitory activity of hibifolin on adenosine deaminase- experimental and molecular modeling study[J]. Computational Biology & Chemistry, 2016, 64:353-358.

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