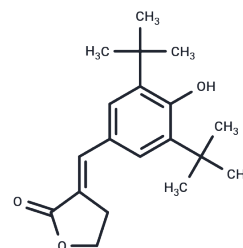


## PGS-IN-1

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 102271-49-8   |
| Formula:          | C <sub>19</sub> H <sub>26</sub> O <sub>3</sub>  |
| Molecular Weight: | 302.41  |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|                            |   |
|----------------------------|---|
| Description                | PGS-IN-1 (KME-4) is a potent inhibitor of prostaglandin synthetase (PGS, IC <sub>50</sub> : 0.28 μM) and 5-lipoxygenase (IC <sub>50</sub> : 1.05 μM).   |
| Targets(IC <sub>50</sub> ) | Lipoxygenase, PGE Synthase, Prostaglandin Receptor  |
| In vitro                   | PGS-IN-1 is the trans isomer of the synthesized α-benzulidene-γ-butyrolactone. PGS-IN-1 exhibits potent anti-inflammatory and PGS inhibitory activity with IC <sub>50</sub> of 0.28 μM[1]. PGS-IN-1 also shows potent inhibitory activity against 5-lipoxygenase with IC <sub>50</sub> of 1.05 μM[1]. |

## Solubility Information

|                     |  |
|---------------------|--|
| Solubility          | DMSO: 55 mg/mL (181.87 mM), Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble)  |
| In vivo Formulation | 10% DMSO+90% Saline: 2.5 mg/mL (8.27 mM), Sonication is recommended.<br><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  | 3.3068 mL | 16.5338 mL | 33.0677 mL |
| 5 mM  | 0.6614 mL | 3.3068 mL  | 6.6135 mL  |
| 10 mM | 0.3307 mL | 1.6534 mL  | 3.3068 mL  |
| 50 mM | 0.0661 mL | 0.3307 mL  | 0.6614 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

Katsumi I, et al. Studies on styrene derivatives. I. Synthesis and antiinflammatory activities of alpha-benzylidene-gamma-butyrolactone derivatives. Chem Pharm Bull (Tokyo). 1986 Jan;34(1):121-9.

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