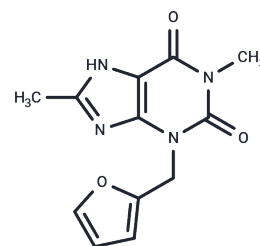


## Furafylline

## Chemical Properties

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| CAS No. :         | 80288-49-9                                                    |
| Formula:          | C <sub>12</sub> H <sub>12</sub> N <sub>4</sub> O <sub>3</sub> |
| Molecular Weight: | 260.25                                                        |
| Appearance:       | no data available                                             |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year      |



## Biological Description

|                            |                                                                                                                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                | Furafylline is a selective inhibitor of human cytochrome P450 (CYP)1A2 (IC <sub>50</sub> : 0.07 μM),                                                                                                                             |
| Targets(IC <sub>50</sub> ) | P450                                                                                                                                                                                                                             |
| In vitro                   | Furafylline was a potent, non-competitive inhibitor of high affinity phenacetin O-deethylase activity of microsomal fractions of human liver, a reaction catalysed by P450IA2, with an IC <sub>50</sub> value of 0.07 microM[1]. |
| In vivo                    | Furafylline was originally introduced as a bronchodilator with extended duration compared to theophylline[1].                                                                                                                    |

## Solubility Information

|            |                                                                                                    |
|------------|----------------------------------------------------------------------------------------------------|
| Solubility | DMSO: 12.5 mg/mL (48.03 mM),<br>( $< 1$ mg/ml refers to the product slightly soluble or insoluble) |
|------------|----------------------------------------------------------------------------------------------------|

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 3.8425 mL | 19.2123 mL | 38.4246 mL |
| 5 mM  | 0.7685 mL | 3.8425 mL  | 7.6849 mL  |
| 10 mM | 0.3842 mL | 1.9212 mL  | 3.8425 mL  |
| 50 mM | 0.0768 mL | 0.3842 mL  | 0.7685 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.

## Reference

Sesardic D , Boobis A R , Murray B P , et al. Furafylline is a potent and selective inhibitor of cytochrome P450IA2 in man.[J]. British Journal of Clinical Pharmacology, 1990, 29(6):651-663.

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