## Data Sheet (Cat.No.TQ0109)



нсі

## Cephaeline dihydrochloride

| Chemical Propert  | ies  |             |
|-------------------|--|-------------|
| CAS No. :         | 5853-29-2  |             |
| Formula:          | C28H40Cl2N2O4  |             |
| Molecular Weight: | 539.54   |             |
| Appearance:       | no data available  | CH3 OCH3 OF |
| Storage:          | keep away from direct sunlight<br>Powder: -20°C for 3 years   In solvent: -80°C for 1 year | нсі         |

## **Biological Description**

| Description   | (-)-Cephaeline (dihydrochloride) is an enantiomer of Cephaeline. Cephaeline is a selective CYP2D6 inhibitor (IC50: 121 µM).   |
|---------------|---|
| Targets(IC50) | P450  |
| In vitro      | IC50 of Cephaeline against CYP2C9, CYP2D6, and CYP3A4 is over 1000, 121 and 1000 μM, respectively. Further experiments are performed to determine inhibition constants (Ki) for Cephaeline on the CYP2D6 and CYP3A4 activities Graphic analysis of Dixon plots at various Cephaeline concentrations for each of the two CYP enzyme assays yield Kis of 54 and 355 μM for CYP2D6 and CYP3A4, respectively. |

| Solubility Information  |  |  |
|-------------------------|--|--|
| Solubility              | DMSO: 80mg/ml<br>H2O: 60mg/ml<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |  |
| Preparing Stock Solutio | ns   |  |

| 6     | 1mg       | 5mg       | 10mg       |
|-------|-----------|-----------|------------|
| 1 mM  | 1.8534 mL | 9.2672 mL | 18.5343 mL |
| 5 mM  | 0.3707 mL | 1.8534 mL | 3.7069 mL  |
| 10 mM | 0.1853 mL | 0.9267 mL | 1.8534 mL  |
| 50 mM | 0.0371 mL | 0.1853 mL | 0.3707 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

Asano T, et al. Metabolism of ipecac alkaloids Cephaeline and Emetine by human hepatic microsomal cytochrome P450s, and their inhibitory effects on P450 enzyme activities. Biol Pharm Bull. 2001 Jun;24(6):678-82.

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