Product Name: Sinomenine hydrochloride

CAS Number: 6080-33-7
EC Number: 204-094-6
IUPAC Name: 9α,13α,14α-7,8-Didehydro-4-hydroxy-3,7-dimethoxy-17-methylmorphinan-6-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** C_{19}H_{23}NO_{4}.HCl.2H_{2}O
- **Batch Molecular Weight:** 401.88
- **Physical Appearance:** White solid
- **Solubility:** Water to 100 mM
- **Storage:** Store at +4°C

2. ANALYTICAL DATA

- **HPLC:** Shows 99.8% purity
- **{1}H NMR:** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Optical Rotation:** [α]_{D} = -81.4 (Concentration = 1, Solvent = Ethanol)
- **Microanalysis:**
  - Carbon: Theoretical 56.79, Found 56.88
  - Hydrogen: Theoretical 7.02, Found 6.76
  - Nitrogen: Theoretical 3.49, Found 3.49
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**IUPAC Name:** 9α,13α,14α -7,8-Didehydro-4-hydroxy-3,7-dimethoxy-17-methylmorphinan-6-one hydrochloride

**Description:**
Natural anti-inflammatory morphinan analog. Causes degranulation of mast cells in mammalian tissues to release histamine and suppresses production of proinflammatory cytokines. Also displays antinociceptive activity, possibly through activation of the μ-opioid receptor. Stimulates short-term renewal of human embryonic stem cells (ESCs) in vitro.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C_{19}H_{23}NO_{4}.HCl.2H_{2}O
- **Batch Molecular Weight:** 401.88
- **Physical Appearance:** White solid
- **Minimum Purity:** >98%

**Storage:** Store at +4°C

**Solubility & Usage Info:**
- water to 100 mM

**Stability and Solubility Advice:**
- Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).
- Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
  - SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
  - SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**