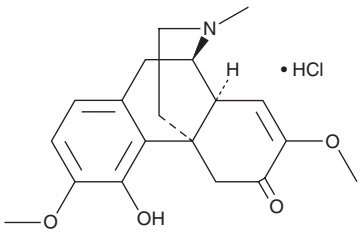
PRODUCT INFORMATION

Sinomenine (hydrochloride)

Item No. 16143

CAS Registry No.: 6080-33-7
Formal Name: (9a,13a,14a)-7,8-didehydro-4-hydroxy-3,7-dimethoxy-17-methyl-morphinan-6-one, monohydrochloride
Synonyms: Cucoline, NSC 76021
MF: $C_{19}H_{23}NO_4 \bullet HCl$
FW: 365.9
Purity: ≥98%
UV/Vis.: λ_{max}: 236 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Sinomenine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the sinomenine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Sinomenine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of sinomenine (hydrochloride) in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sinomenine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of sinomenine (hydrochloride) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Sinomenine is a natural plant alkaloid commonly used to alleviate inflammation associated with rheumatoid arthritis.[1] It activates histamine release, reduces joint stiffness and pain, and alters cytokine generation without producing gastrointestinal adverse events.[1-4] Sinomenine also impairs signaling through NF-κB, resulting in immunosuppression as well as reduced inflammation and pain.[1,3] It enhances the bioavailability of some compounds, at least in part through an inhibition of drug export by transporters like P-glycoprotein.[5,6]

References

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4. Xu, M., Liu, L., Qi, C., *et al. Planta Med.* **74(12)**, 1426-1429 (2008).
5. Kesarwani, K., Gupta, R., and Mukerjee, A. *Asian Pac. J. Trop. Biomed* **3(4)**, 253-266 (2013).
6. Liu, Z., Duan, Z.-J., Chang, J.-Y., *et al. PLoS One* **9(6)**, 1-9 (2014).

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