Sinomenine is a natural plant alkaloid commonly used to alleviate inflammation associated with rheumatoid arthritis (Wang and Li). It impairs signaling through Nuclear factor-kappa\(\beta\) (NF-\(\kappa\)B; Sun et al.; Wang and Li) and enhances the bioavailability of some compounds, at least in part through an inhibition of drug export by transporters like P-glycoprotein (Kesarwani et al.; Liu et al.). This product is supplied as the hydrochloride salt of the molecule.

**Product Description**

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**Molecular Name:** Sinomenine (Hydrochloride)

**Alternative Names:** Cocculine; Cucoline; NSC 76021

**CAS Number:** 6080-33-7

**Chemical Formula:** \(\text{C}_{19}\text{H}_{23}\text{NO}_4\cdot\text{HCl}\)

**Molecular Weight:** 365.9 g/mol

**Purity:** \(\geq 98\%\)

**Chemical Name:** 9-alpha,13-alpha,14-alpha-Morphinan-6-one,7,8-didehydro-3,7-dimethoxy-4-hydroxy-17-methyl-,hydrochloride

**Structure:**

![Structure of Sinomenine](image)

**Properties**

**Physical Appearance:** A crystalline solid

**Storage:** Product stable at -20\(^\circ\)C as supplied. Protect from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.

**Solubility:**
- PBS (pH 7.2) \(\leq 13\) mM
- DMSO \(\leq 80\) mM
- Absolute ethanol \(\leq 13\) mM

For example, to prepare a 10 mM stock solution in DMSO, resuspend 50 mg in 13.7 mL of fresh DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20\(^\circ\)C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.
Published Applications

MAINTENANCE AND SELF-RENEWAL
· Promotes self-renewal in cultured human and mouse embryonic stem (ES) cells (Desbordes et al.).

References


Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, please visit our website at www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

This product is hazardous. Please refer to the Safety Data Sheet (SDS).

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