
Product Data Sheet

Product Name: Noscapine ((S,R)-Noscapine)

Cat. No.: GC32821

Chemical Properties

Cas. No. 128-62-1

SMILES O=C1O[C@H]([C@@H]2N(C)CCC3=C2C(OC)=C(OC)C4=C3)C5=C1C(OC)=C(OC)C=C5

Formula C22H23NO7 M.Wt 413.42Solubility DMSO : ≥ 30 mg/mL (72.57 mM) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Noscapine is an orally administrable drug used worldwide for cough suppression, primarily mediated by its σ -receptor agonist activity, and possess anticancer activity. Target: σ -receptor in vitro: Noscapine is a phthalideisoquinoline alkaloid from opium, is a recently discovered anticancer drug and is currently under investigation in phase-I/II clinical trials for the treatment of leukemia and lymphoma. Noscapine causes few or no side effects and has been widely used as a cough suppressant in developing countries. Noscapine has been demonstrated to interact with microtubules. Interestingly, unlike many other microtubule-targeting agents such as Paclitaxel and Nocodazole, Noscapine does not obviously affect the total amount of microtubule polymers in cells; instead, it significantly increases the time microtubules spend in the pause state. The alteration of microtubule dynamics then activates the spindle checkpoint and arrests cell cycle progression at mitosis, leading to apoptotic cell death.

[1]. Yang Y, et al. CYLD Regulates Noscapine Activity in Acute Lymphoblastic Leukemia via a Microtubule-Dependent Mechanism. Theranostics. 2015 Mar 2;5(7):656-666.

Caution: Product has not been fully validated for medical applications. For research use only.

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