# HIV-1 integrase inhibitor 8

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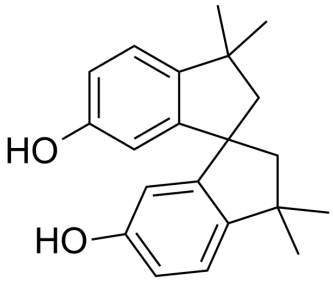
|---|---|
| **Cat. No.:** | HY-107485 |
| **CAS No.:** | 1568-80-5 |
| **Molecular Formula:** | $C_{21}H_{24}O_2$ |
| **Molecular Weight:** | 308.41 |
| **Target:** | HIV Integrase |
| **Pathway:** | Metabolic Enzyme/Protease |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |




## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 125 mg/mL (405.30 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 3.2424 mL | 16.2122 mL | 32.4244 mL |
| | 5 mM | 0.6485 mL | 3.2424 mL | 6.4849 mL |
| | 10 mM | 0.3242 mL | 1.6212 mL | 3.2424 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (6.74 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.74 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.74 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

HIV-1 integrase inhibitor 8 is a HIV-1 integrase inhibitor, compound 8[1].

**In Vitro**

HIV-1 integrase inhibitor 8 is against 3′-processing (TC) and strand-transfer (ST) activities in the presence of $Mn^{2+}$ as the cationic cofactor by gel assay with $IC_{50}$ values of 275 μM and 200 μM, respectively. It inhibits the strand-transfer (ST) activity with an $IC_{50}$ value of 200 μM[1].

The DNA relaxation activity of MCV topoisomerase is monitored by gel electrophoresis, while DNA cleavage and religation activities were monitored using a microtiter assay. HIV-1 integrase inhibitor 8 inhibits MCV topoisomerase and DNA religation with $IC_{50}$ values of 500 μM and 200 μM, respectively. This result demonstrates that compound 8 is inactive against

topoisomerase in both assays[1].
HIV-1 integrase inhibitor 8 induces cell cytotoxicity and yields a $LD_{50}$ (dose at which the signal is reduced 50% due to cell death) of 20 μM in HeLa cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Molteni, et al. A New Class of HIV-1 Integrase Inhibitors: The 3,3,3', 3'-tetramethyl-1,1'-spirobi(indan)-5,5',6,6'-tetrol Family.J Med Chem



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