**EIDD-1931**

Cat. No.: HY-125033  
CAS No.: 3258-02-4  
Molecular Formula: $C_9H_{13}N_3O_6$  
Molecular Weight: 259.22  
Target: SARS-CoV; Enterovirus; HCV; Topoisomerase  
Pathway: Anti-infection; Cell Cycle/DNA Damage  
Storage: Powder  
-20°C  3 years  
4°C  2 years

* The compound is unstable in solutions, freshly prepared is recommended.

### SOLVENT & SOLUBILITY

**In Vitro**  
DMSO: 100 mg/mL (385.77 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Solvent</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>3.8577 mL</td>
<td>19.2886 mL</td>
<td>38.5773 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.7715 mL</td>
<td>3.8577 mL</td>
<td>7.7155 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.3858 mL</td>
<td>1.9289 mL</td>
<td>3.8577 mL</td>
</tr>
</tbody>
</table>

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 (8.02 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (8.02 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (8.02 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**

EIDD-1931 (Beta-d-N4-hydroxycytidine; NHC) is a novel nucleoside analog and behaves as a potent anti-virus agent. EIDD-1931 effectively inhibits the replication activity of venezuelan equine encephalitis virus (VEEV), Chikungunya virus (CHIKV) and hepatitis C virus (HCV)\(^1\).

**In Vitro**

Beta-d-N4-hydroxycytidine is an anti-VEEV (venezuelan equine encephalitis virus) agent with EC\(_{50}\), EC\(_{90}\), and EC\(_{99}\) are 0.426, 1.036, and 2.5 μM, respectively\(^1\).

Beta-d-N4-hydroxycytidine inhibits CHIKV replicon activity and the 50% effective concentration (EC\(_{50}\)) ≤ 0.8 μM in the Huh-7–CHIKV replicon cell line. Similar results is presented with the replicon in BHK-21 cells (EC\(_{50}=1.8 \) μM)\(^2\).

---

NHC has no cytotoxicity for NHC in the Huh-7 cell culture system until up to 100 μM using MTT assays. The 50% cytotoxic concentration (CCsub>50) values for NHC are determined to be 30.6 μM, 7.7 μM, and 2.5 μM in peripheral blood mononuclear (PBM), Vero, and CEM cells, respectively[2].

NHC behaves as a pyrimidine analog. NHC-mediated inhibition of the CHIKV replicon can be abrogated by the addition of exogenous nucleosides, such as pyrimidines C and U, but dA, dC, dG, dU, or T has no impact on the replicon. Pyrimidines A and G contributes to replicon inhibition both in the presence and in the absence of NHC[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION


See more customer validations on www.MedChemExpress.com

REFERENCES

