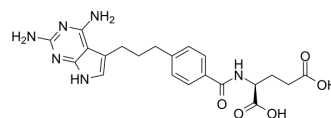


## TNP-351

<b>Cat. No.:</b>	HY-19095
<b>CAS No.:</b>	125991-51-7
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>24</sub> N <sub>6</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	440.45
<b>Target:</b>	Antifolate
<b>Pathway:</b>	Cell Cycle/DNA Damage
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	TNP-351 is an antifolate. TNP-351, a dihydrofolate reductase (DHFR) inhibitor, has potent antitumor activity against not only leukemia cells but also solid tumor cells in vitro and in vivo <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	Antifolate, DHFR <sup>[1]</sup>								
<b>In Vitro</b>	<p>TNP-351 inhibits the proliferation of mouse L1210 leukemia cells and human CCRF-CEM lymphoblastic leukemia cells with ED<sub>50</sub> values of 0.79 and 2.7 nM, respectively<sup>[1]</sup>.</p> <p>The ED<sub>50</sub> values determined for the parent cell line CCRF-CEM, CCRFCEM R30/6 subline, CCRF-CEM R1, and CCRF-CEM R2 are 2.7, 5.8, 94 and 76 nM, respectively<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>L1210 and CCRF-CEM cells</td> </tr> <tr> <td>Concentration:</td> <td>0.1, 0.3, 1, 3, and 10 nM for L1210 cells; 0.3, 1, 3, 10, and 30 for CCRF-CEM cells</td> </tr> <tr> <td>Incubation Time:</td> <td>48 hours for L1210 cells; 72 hours for CCRF-CEM cells</td> </tr> <tr> <td>Result:</td> <td>The ED<sub>50</sub> values were 0.79 and 2.7 nM for L1210 and CCRF-CEM cells, respectively.</td> </tr> </table>	Cell Line:	L1210 and CCRF-CEM cells	Concentration:	0.1, 0.3, 1, 3, and 10 nM for L1210 cells; 0.3, 1, 3, 10, and 30 for CCRF-CEM cells	Incubation Time:	48 hours for L1210 cells; 72 hours for CCRF-CEM cells	Result:	The ED <sub>50</sub> values were 0.79 and 2.7 nM for L1210 and CCRF-CEM cells, respectively.
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### REFERENCES

[1]. F Itoh ,et al. Novel pyrrolo[2,3-d]pyrimidine Antifolate TNP-351: Cytotoxic Effect on Methotrexate-Resistant CCRF-CEM Cells and Inhibition of Transformylases of De Novo Purine Biosynthesis. *Cancer Chemother Pharmacol.* 1994;34(4):273-9.

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

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