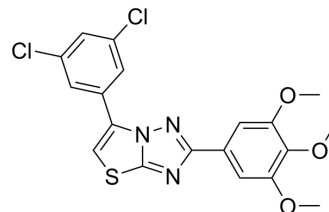


## Tubulin polymerization-IN-44

<b>Cat. No.:</b>	HY-155686
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>15</sub> Cl <sub>2</sub> N <sub>3</sub> O <sub>3</sub> S
<b>Molecular Weight:</b>	436.31
<b>Target:</b>	Microtubule/Tubulin
<b>Pathway:</b>	Cell Cycle/DNA Damage; Cytoskeleton
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Tubulinpolymer-in-44 (compound 7w) is a strong and effective Tubulin inhibitor, with an IC <sub>50</sub> value of 0.21 μM. Tubulinpolymer-in-44 induces apoptosis by arresting G2/M phase, which can be used for cancer research.								
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.21 μM (Tubulin) <sup>[1]</sup>								
<b>In Vitro</b>	<p>Tubulin polymerization-IN-44 (0.42 μM, 24 h- 48 h ) shows antiproliferative activity against SGC-7910 cells (IC<sub>50</sub> values of 0.21 μM)<sup>[1]</sup></p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cycle Analysis</p> <table border="1"> <tr> <td>Cell Line:</td> <td>SGC-7901 cells<sup>[1]</sup></td> </tr> <tr> <td>Concentration:</td> <td>0.42 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h- 48 h</td> </tr> <tr> <td>Result:</td> <td>Extended up the percentage of cells in G2/M phase from 10% to 42% (24 h) after treatment. Induced cell apoptosis at about 48 h.</td> </tr> </table>	Cell Line:	SGC-7901 cells <sup>[1]</sup>	Concentration:	0.42 μM	Incubation Time:	24 h- 48 h	Result:	Extended up the percentage of cells in G2/M phase from 10% to 42% (24 h) after treatment. Induced cell apoptosis at about 48 h.
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<b>In Vivo</b>	<p>Tubulin Polymers-in-44 (5-20 mg/kg every other day) inhibits tumor growth in a mouse model of breast cancer 4T1 cells without reducing body weight loss<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Balb/c female mice (mouse breast cancer 4T1 cells )<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>5, 10, and 20 mg/kg; every other day</td> </tr> <tr> <td>Administration:</td> <td>intravenous injection (i.c.) ;12-day.</td> </tr> <tr> <td>Result:</td> <td>Inhibited tumor growth with the rate of 49.2%, 58.1% and 84.0% at the dose of 5, 10 and 20 mg/kg ; Did not cause a decrease in animal body weight even at the high dose (20 mg/kg).</td> </tr> </table>	Animal Model:	Balb/c female mice (mouse breast cancer 4T1 cells ) <sup>[1]</sup>	Dosage:	5, 10, and 20 mg/kg; every other day	Administration:	intravenous injection (i.c.) ;12-day.	Result:	Inhibited tumor growth with the rate of 49.2%, 58.1% and 84.0% at the dose of 5, 10 and 20 mg/kg ; Did not cause a decrease in animal body weight even at the high dose (20 mg/kg).
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## REFERENCES

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[1]. Na Li, et al. Discovery of 6-aryl-2-(3,4,5-trimethoxyphenyl)thiazole[3,2-b][1,2,4]

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

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