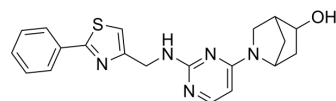


TACC3 inhibitor 1

Cat. No.:	HY-151985
Molecular Formula:	C ₂₀ H ₂₁ N ₅ OS
Molecular Weight:	379.48
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	TACC3 inhibitor 1 is a potent and cross the blood-brain barrier TACC3 inhibitor. TACC3 inhibitor 1 induces Apoptosis and cell cycle arrest at G2/M phase. TACC3 inhibitor 1 induces the generation of intracellular ROS. TACC3 inhibitor 1 shows antiproliferative and anti-tumor activity ^[1] .																				
In Vitro	<p>TACC3 inhibitor 1 (compound 7g) (1, 2, 4 μM; 36 h) induces apoptosis and cell cycle arrest at G2/M phase^[1].</p> <p>TACC3 inhibitor 1 (1, 2, 4 μM; 36 h) decreases the mitochondrial membrane potential and induces the generation of intracellular ROS^[1].</p> <p>TACC3 inhibitor 1 (1, 2, 4 μM; 24 h) inhibits cell migration and invasion in U87 cells^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U251, U87, MDA-MB-231, JIMT-1, SKOV-3, HLF-1 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Showed antiproliferative activities with IC₅₀s of 5.61, 3.29, 6.46, 4.84, 8.21, 23.11 μM for U251, U87, MDA-MB-231, JIMT-1, SKOV-3, HLF-1 cells, respectively.</td> </tr> </table> <p>Cell Cycle Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U87 cells</td> </tr> <tr> <td>Concentration:</td> <td>1, 2, 4 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>36 h</td> </tr> <tr> <td>Result:</td> <td>Induced cell cycle arrest at G2/M phase with the 41.2% cells at G2/M phase at 4 μM.</td> </tr> </table> <p>Apoptosis Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U87 cells</td> </tr> <tr> <td>Concentration:</td> <td>1, 2, 4 μM</td> </tr> </table>	Cell Line:	U251, U87, MDA-MB-231, JIMT-1, SKOV-3, HLF-1 cells	Concentration:	0-100 μM	Incubation Time:	24 h	Result:	Showed antiproliferative activities with IC ₅₀ s of 5.61, 3.29, 6.46, 4.84, 8.21, 23.11 μM for U251, U87, MDA-MB-231, JIMT-1, SKOV-3, HLF-1 cells, respectively.	Cell Line:	U87 cells	Concentration:	1, 2, 4 μM	Incubation Time:	36 h	Result:	Induced cell cycle arrest at G2/M phase with the 41.2% cells at G2/M phase at 4 μM.	Cell Line:	U87 cells	Concentration:	1, 2, 4 μM
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In Vivo	<p>TACC3 inhibitor 1 (20 mg/kg; i.p.; daily for 20 days) shows anti-tumor activity in mouse^[1]. 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>Six-week-old BALB/c nude mice (U87 xenograft model)^[1]</td> </tr> <tr> <td>Dosage:</td> <td>20 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>I.p.; daily for 20 days</td> </tr> <tr> <td>Result:</td> <td>Exhibited a significant tumor growth regression and no observable toxicity during the administration period and had no effects on the body weight.</td> </tr> </table>	Animal Model:	Six-week-old BALB/c nude mice (U87 xenograft model) ^[1]	Dosage:	20 mg/kg	Administration:	I.p.; daily for 20 days	Result:	Exhibited a significant tumor growth regression and no observable toxicity during the administration period and had no effects on the body weight.
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REFERENCES

[1]. Zhao W, et al. Discovery of novel analogs of KHS101 as transforming acidic coiled coil containing protein 3 (TACC3) inhibitors for the treatment of glioblastoma. *Eur J Med Chem.* 2022 Dec 15;244:114874.

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

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