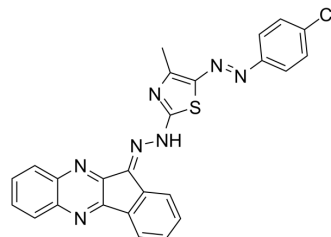


Apoptotic agent-2

Cat. No.:	HY-147928
CAS No.:	2482310-18-7
Molecular Formula:	C ₂₅ H ₁₆ ClN ₇ S
Molecular Weight:	481.96
Target:	Apoptosis; Caspase; Bcl-2 Family
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Apoptotic agent-2 (compound 14b) induces apoptosis by down-regulation of Bcl-2 and up-regulation of Bax and caspase-3. Apoptotic agent-2 exhibits anti-proliferative activities and can be used for cancer research ^[1] .																		
IC₅₀ & Target	Bax	Caspase 3	Bcl-2																
In Vitro	<p>Apoptotic agent-2 (compound 14b) (24 hours) has selective anti-proliferative activities against HCT-116, HepG-2, MCF-7 and WI-38 (normal human cells) cells with IC₅₀ values of 1.96, 1.12, 2.38 and 107.5 μM, respectively^[1].</p> <p>Apoptotic agent-2 (compound 14b) (1.12 μM; 24 hours; HepG-2 cells) induces cell apoptosis, which increases the levels of active Caspase-3 and BAX by 10.92 folds and 9.7 folds, respectively, and decreases the level of Bcl-2 by 3.3 folds^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cycle Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HepG-2 cells</td> </tr> <tr> <td>Concentration:</td> <td>1.12 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>The percentage of cells in the G2-M phase increased while the percentage of cells in G0-G1 phase and S phase decreased.</td> </tr> </table> <p>Apoptosis Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HepG-2 cells</td> </tr> <tr> <td>Concentration:</td> <td>1.12 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Increased the early apoptosis ratio from 0.69% to 5.17% and increased the late apoptosis ratio from 0.32% to 12.11%.</td> </tr> </table>			Cell Line:	HepG-2 cells	Concentration:	1.12 μM	Incubation Time:	24 hours	Result:	The percentage of cells in the G2-M phase increased while the percentage of cells in G0-G1 phase and S phase decreased.	Cell Line:	HepG-2 cells	Concentration:	1.12 μM	Incubation Time:	24 hours	Result:	Increased the early apoptosis ratio from 0.69% to 5.17% and increased the late apoptosis ratio from 0.32% to 12.11%.
Cell Line:	HepG-2 cells																		
Concentration:	1.12 μM																		
Incubation Time:	24 hours																		
Result:	The percentage of cells in the G2-M phase increased while the percentage of cells in G0-G1 phase and S phase decreased.																		
Cell Line:	HepG-2 cells																		
Concentration:	1.12 μM																		
Incubation Time:	24 hours																		
Result:	Increased the early apoptosis ratio from 0.69% to 5.17% and increased the late apoptosis ratio from 0.32% to 12.11%.																		

REFERENCES

[1]. Fayed EA, et al. In vitro cytotoxic activity of thiazole-indenoquinoxaline hybrids as apoptotic agents, design, synthesis, physicochemical and pharmacokinetic studies. Bioorg Chem. 2020 Jul;100:103951.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA