



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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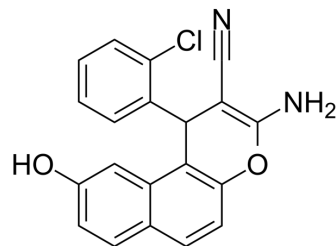
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## P-gp inhibitor 22

<b>Cat. No.:</b>	HY-162447
<b>CAS No.:</b>	1226674-74-3
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>13</sub> ClN <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	348.78
<b>Target:</b>	P-glycoprotein; Apoptosis
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Apoptosis
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	P-gp inhibitor 22 is a P-glycoprotein (P-gp) inhibitor that effectively inhibits P-gp and efflux function. P-gp inhibitor 22 induces apoptosis and accumulation of MCF-7/ADR cells processed in the S phase <sup>[1]</sup> .																
<b>In Vitro</b>	<p>P-gp inhibitor 22 (compound 4b; 6.25-100 μM; 24 h) demonstrates significant vigour against MCF-7/ADR cells<sup>[1]</sup>.</p> <p>P-gp inhibitor 22 (compound 4b; 5 μM; 24 h) induces apoptosis and accumulation of MCF-7/ADR cells processed in the S phase<sup>[1]</sup>.</p> <p>P-gp inhibitor 22 inhibits a variety cell lines, such as PC-3, SKOV-3, HeLa, MCF-7/ADR, HFL-1, and WI-38 cells, the IC<sub>50</sub> values of 3.3 μM, 0.7 μM, 2.4 μM, 5.0 μM, 72.0 μM, and 61.1 μM, 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>MCF-7/ADR cells</td> </tr> <tr> <td>Concentration:</td> <td>6.25 μM, 12.5 μM, 25 μM, 50 μM, 100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Showed dose-dependent cytotoxicity in MCF-7/ADR cells.</td> </tr> </table> <p>Cell Cycle Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>MCF-7/ADR cells</td> </tr> <tr> <td>Concentration:</td> <td>5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Showed cell cycle arrest at S phase and induced apoptosis.</td> </tr> </table>	Cell Line:	MCF-7/ADR cells	Concentration:	6.25 μM, 12.5 μM, 25 μM, 50 μM, 100 μM	Incubation Time:	24 h	Result:	Showed dose-dependent cytotoxicity in MCF-7/ADR cells.	Cell Line:	MCF-7/ADR cells	Concentration:	5 μM	Incubation Time:	24 h	Result:	Showed cell cycle arrest at S phase and induced apoptosis.
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### REFERENCES

[1]. Ashraf H F Abd El-Wahab, et al. Design, synthesis and bioactivity study on oxygen-heterocyclic-based pyran analogues as effective P-glycoprotein-mediated multidrug resistance in MCF-7/ADR cell. Sci Rep. 2024 Mar 31;14(1):7589.

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

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