



# SZABO SCANDIC

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Laborgeräte & Service

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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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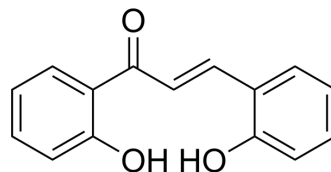
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## 2,2'-Dihydroxychalcone

<b>Cat. No.:</b>	HY-W154265
<b>CAS No.:</b>	15131-80-3
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>12</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	240.25
<b>Target:</b>	Glutathione S-transferase; Apoptosis
<b>Pathway:</b>	Metabolic Enzyme/Protease; Apoptosis
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	2,2'-Dihydroxychalcone, a flavonoid, is a glutathione S-transferase (GST) inhibitor with an IC <sub>50</sub> of 28.9 μM in human colon cancer cells. 2,2'-Dihydroxychalcone induces cell cycle arrest and apoptosis in prostate cancer cells. 2,2'-Dihydroxychalcone has anticancer and anti-inflammatory properties <sup>[1][2]</sup> .																						
<b>In Vitro</b>	<p>2,2'-Dihydroxychalcone (1-50 μM; 72 h) causes a dose-dependent reduction in viability, a concomitant increase in apoptosis in PC3 cells at 72 h, and a decrease in clonogenic survival at 24 h treatment<sup>[1]</sup>.</p> <p>2,2'-Dihydroxychalcone (15 μM; 6-48 h) markedly decreases the protein levels of Cyclin A and Cyclin B1, cdc2 and PIK1<sup>[1]</sup>. 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>PC3 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM, 5 μM, 15 μM, 25 μM, 50 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 h</td> </tr> <tr> <td>Result:</td> <td>Decreased PC3 cell viability and inhibited clonogenic survival.</td> </tr> </table> <p>Apoptosis Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>PC3 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM, 5 μM, 15 μM, 25 μM, 50 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 h</td> </tr> <tr> <td>Result:</td> <td>Induced apoptosis in PC3 cells.</td> </tr> </table> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>PC3 cells</td> </tr> <tr> <td>Concentration:</td> <td>15 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>6 h, 12 h, 24 h, 48 h</td> </tr> </table>	Cell Line:	PC3 cells	Concentration:	1 μM, 5 μM, 15 μM, 25 μM, 50 μM	Incubation Time:	72 h	Result:	Decreased PC3 cell viability and inhibited clonogenic survival.	Cell Line:	PC3 cells	Concentration:	1 μM, 5 μM, 15 μM, 25 μM, 50 μM	Incubation Time:	72 h	Result:	Induced apoptosis in PC3 cells.	Cell Line:	PC3 cells	Concentration:	15 μM	Incubation Time:	6 h, 12 h, 24 h, 48 h
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Result:	Induced cell cycle arrest in PC3 cells.
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## REFERENCES

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[1]. Ahmed Q Haddad, et al. Antiproliferative mechanisms of the flavonoids 2,2'-dihydroxychalcone and fisetin in human prostate cancer cells. *Nutr Cancer*. 2010;62(5):668-81.

[2]. Kenneth Goh, et al. 2,2'-Dihydroxychalcone, a glutathione transferase inhibitor, sensitises human colon adenocarcinoma cells to chlorambucil and melphalan, but not to actinomycin D. *Mol Med Rep*. 2008 Jul-Aug;1(4):575-9.

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

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