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- Trockeneiszuschlag
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## Grape seed extract

Cat. No.:	HY-N7072
CAS No.:	84929-27-1
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

## Grape seed extract

### SOLVENT & SOLUBILITY

In Vitro	DMSO : 6 mg/mL (Need ultrasonic)
In Vivo	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 0.6 mg/mL (Infinity mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.6 mg/mL (Infinity mM); Clear solution</li> </ol>

### BIOLOGICAL ACTIVITY

Description	Grape seed extract is a natural product, with anti-inflammatory and anti-proliferative effects. Grape seed extract shows inhibitory activity on the fat-metabolizing enzymes pancreatic lipase and lipoprotein lipase. Grape seed extract induces apoptotic in human colorectal cancer cells <sup>[1][2][3]</sup> .										
In Vitro	<p>Grape seed extract (25-100 µg/mL; 12-48 hours) inhibits growth and induces death in human colorectal cancer cells<sup>[3]</sup>. Grape seed extract (25-100 µg/mL; 12-24 hours) modulates the protein levels of cell cycle regulatory molecules in HT29 and LoVo cells<sup>[3]</sup>. Grape seed extract (25-100 µg/mL; 24 hours) causes apoptotic cell death of human colorectal cancer cells<sup>[3]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay<sup>[3]</sup></p> <table> <tr> <td>Cell Line:</td> <td>HT29 cells, LoVo cells</td> </tr> <tr> <td>Concentration:</td> <td>25 µg/mL, 50 µg/mL, 100 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>12 hours, 24 hours, 48 hours</td> </tr> <tr> <td>Result:</td> <td>Inhibited cell growth in a dose- and a time-dependent manner.</td> </tr> </table> <p>Cell Cycle Analysis<sup>[3]</sup></p> <table> <tr> <td>Cell Line:</td> <td>HT29 cells, LoVo cells</td> </tr> </table>	Cell Line:	HT29 cells, LoVo cells	Concentration:	25 µg/mL, 50 µg/mL, 100 µg/mL	Incubation Time:	12 hours, 24 hours, 48 hours	Result:	Inhibited cell growth in a dose- and a time-dependent manner.	Cell Line:	HT29 cells, LoVo cells
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<b>In Vivo</b>	<p>Grape seed extract (200 mg/kg; i.g.; 5 days/wk; for 8 weeks) inhibits HT29 colon carcinoma tumor xenograft growth in athymic nude mice<sup>[3]</sup>.</p> <p>Grape seed extract inhibits cell proliferation but increases apoptotic cell death in tumors<sup>[3]</sup>.</p> <p>Grape seed extract enhances Cip1/p21protein levels and poly(ADP-ribose) poly-merase cleavage in tumors<sup>[3]</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>Athymic male nu/nu mice, with human colon carcinoma HT29 tumor xenograft<sup>[3]</sup></td> </tr> <tr> <td>Dosage:</td> <td>200 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral gavage, 5 days/wk, for 8 weeks</td> </tr> <tr> <td>Result:</td> <td>Showed time-dependent inhibition of tumor growth.</td> </tr> </table>	Animal Model:	Athymic male nu/nu mice, with human colon carcinoma HT29 tumor xenograft <sup>[3]</sup>	Dosage:	200 mg/kg	Administration:	Oral gavage, 5 days/wk, for 8 weeks	Result:	Showed time-dependent inhibition of tumor growth.
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## CUSTOMER VALIDATION

- Int J Mol Sci. 2023 Apr 6, 24(7), 6826.

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## REFERENCES

[1]. The effects of grape seed extract (Vitis vinifera) supplement on inflammatory markers, neuropeptide Y, anthropometric measures, and appetite in obese or overweight

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individuals: A randomized clinical trial.

[2]. Inhibitory effects of grape seed extract on lipases. Nutrition. 2003 Oct;19(10):876-9.

[3]. Manjinder Kaur, et al. Grape seed extract inhibits in vitro and in vivo growth of human colorectal carcinoma cells. Clin Cancer Res. 2006 Oct 15;12(20 Pt 1):6194-202.

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

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