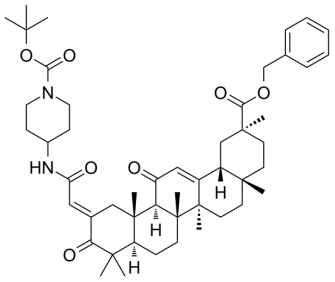
# Apoptosis inducer 7

| | |
|---|---|
| **Cat. No.:** | HY-149017 |
| **CAS No.:** | 2252278-57-0 |
| **Molecular Formula:** | $C_{49}H_{68}N_2O_7$ |
| **Molecular Weight:** | 797.07 |
| **Target:** | Apoptosis |
| **Pathway:** | Apoptosis |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

**Description**

Apoptosis inducer 7 (Compound 5I) induces apoptosis in cancer cells. Apoptosis inducer 7 inducrs cleavage of PARP, caspases, down-regulation of anti-apoptotic protein c-Flip and up regulation of pro-apoptotic protein Noxa. Apoptosis inducer 7 exhibits antitumor activity[1].

**In Vitro**

Apoptosis inducer 7 (Compound 5I) (0.098-50 μM, 96 hours; human tumor cell lines) exerts the most potent antitumor activities against human cancer cell lines[1].

Apoptosis inducer 7 (Compound 5I) induces apoptosis in HCT-116 cells, and the apoptosis induction is related to the downregulation of anti-apoptotic protein c-Flip and upregulation of pro-apoptotic protein Noxa[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

| | |
|---|---|
| Cell Line: | Human breast cancer MDA-MB-231 cells, human lung cancer A549 cells, human colorectal cancer HCT-116 cells, human liver cancer HepG-2 cells and one non-tumor human breast epithelial MCF-10A cells. |
| Concentration: | 0.098-50 μM |
| Incubation Time: | 96 hours |
| Result: | Inhibited with $IC_{50}$ values of 0.22, 0.15, 0.42, 0.14 and 1.03 μM for MDA-MB-231, A549, HCT-116, HepG-2 and MCF-10A, respectively. |

Cell Cycle Analysis[1]

| | |
|---|---|
| Cell Line: | HCT-116 cells |
| Concentration: | 0.5, 0.75 and 1.0 μM |
| Incubation Time: | 24 hours |
| Result: | More than 40% of the cells were detected in the sub G1 phase. |

Western Blot Analysis[1]

| | |
|---|---|
| Cell Line: | HCT-116 cells |

| | |
|---|---|
| Concentration: | 0.5, 0.75 and 1.0 μM |
| Incubation Time: | 24 hours |
| Result: | Induced cleavage of PARP, caspases and decreased the levels of c-Flip and HDAC3 proteins. |

**In Vivo**

Apoptosis inducer 7 (Compound 5l) (5 mg/kg; i.p.; three times a week, for 14 days; LL/2 xenograft model in C57/ BL6J mice) inhibits tumor growth[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|---|---|
| Animal Model: | KARPAS-422 subcutaneous xenograft in mice[1] |
| Dosage: | 5 mg/kg |
| Administration: | Intraperitoneal injection; three times a week, for 14 days. |
| Result: | Inhibited the tumor growth with an inhibition rate of 62.3%, without significant body weight loss. |

## REFERENCES

[1]. Huang M, et al. Synthesis and antitumor effects of novel 18β-glycyrrhetinic acid derivatives featuring an exocyclic α,β-unsaturated carbonyl moiety in ring A. Bioorg Chem. 2020 Oct;103:104187.



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