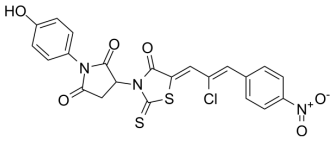
Anticancer agent 45

Cat. No.:	HY-146290
CAS No.:	2770943-87-6
Molecular Formula:	$C_{22}H_{14}ClN_3O_6S_2$
Molecular Weight:	515.95
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Anticancer agent 46 (compound 2b) is a potent and selective anticancer agent. Anticancer agent 46 shows cytotoxicity activity in cancer cells. Anticancer agent 46 induces apoptosis. Anticancer agent 46 shows low toxicity towards activated lymphocytes of human blood[1].

In Vitro

Anticancer agent 46 (compound 2b) (0-100 μM; 72 h) shows antitumor activity with GI_{50}S of 1.30, 7.25, 4.00, 6.20, 8.00, 6.13, 4.52, 5.65, 1.10, >100, 73.62 μM for Jurkat, A549, MCF-7, MDA-MB-231, KB3-1, HeLa, HCT-116, HCT-116 p53-/-, U251, SK-OV-3, HaCaT cells, respectively[1].

Anticancer agent 46 (1.5 μM; 24 h) induces apoptosis by increases the expression of caspase 3, Bax and decreases the amount of anti-apoptotic Bcl-2 protein[1].

Anticancer agent 46 (compound 2b) (0-2 μM; 24, 48 h) shows low toxicity towards normal human keratinocytes of HaCaT line and mitogen-activated lymphocytes of peripheral blood of healthy human donor[1].

Anticancer agent 46 dose not induce significant DNA damage and changes in morphology of mitogen-activated lymphocytes of peripheral blood of healthy donor[1].

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

Western Blot Analysis[1]

Cell Line:	Jurkat cells
Concentration:	1.5 μM
Incubation Time:	24 h
Result:	Increased in the amount of pro-apoptotic proteins: caspase 3, Bax, and decreased the amount of anti-apoptotic Bcl-2 protein.

REFERENCES

[1]. Finiuk N, et al. Novel hybrid pyrrolidinedione-thiazolidinones as potential anticancer agents: Synthesis and biological evaluation. Eur J Med Chem. 2022 May 2;238:114422.

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

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