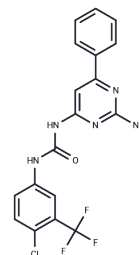


Anticancer agent 71

Chemical Properties

CAS No. :	2453228-45-8
Formula:	C ₁₈ H ₁₃ ClF ₃ N ₅ O
Molecular Weight:	407.78
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Anticancer agent 71 (Compound 4b) is a potent anticancer agent. Anticancer agent 71 arrests cell cycle at G2/M phase. Anticancer agent 71 induces apoptosis through upregulating Bax, Ikb- α and cleaved PARP and downregulating Bcl-2 expression levels.
In vitro	Anticancer agent 71 (Compound 4b), administered at concentrations ranging from 0.1 to 50 μ M for 24 hours, significantly enhances cytotoxic effects and demonstrates robust antitumor potential in SW480 and PC3 cells [1]. This compound, at a specific dose of 11.08 μ M applied to SW480 cells for the same duration, notably induces G2/M phase arrest [1] and triggers apoptosis. The apoptosis mechanism involves the upregulation of Bax and Ikb- α , along with cleaved PARP, and the downregulation of Bcl-2 expression [1]. Through cell cytotoxicity assays, it was determined that agent 71 inhibits cell viability with IC ₅₀ values of 11.08 μ M for SW480 cells and 17.39 μ M for PC3 cells. Additionally, cell cycle analysis revealed a 45.3% increase in the G2/M phase population in SW480 cells. Apoptosis analysis recorded early and late apoptosis rates at 5.69% and 3.52%, respectively. Western blot analysis confirmed these findings by showing a decrease in Bcl-2 expression and an increase in Bax expression, highlighting the compound's ability to effectively promote apoptosis in cancer cells [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4523 mL	12.2615 mL	24.523 mL
5 mM	0.4905 mL	2.4523 mL	4.9046 mL
10 mM	0.2452 mL	1.2262 mL	2.4523 mL
50 mM	0.049 mL	0.2452 mL	0.4905 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

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