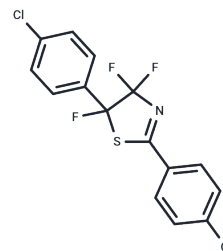


## Fluorizoline

## Chemical Properties

CAS No. :	1362243-70-6
Formula:	C <sub>15</sub> H <sub>8</sub> Cl <sub>2</sub> F <sub>3</sub> NS
Molecular Weight:	362.20
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Fluorizoline is a PHB-binding compound with anticancer and antiproliferative activity that induces apoptosis by inducing selective targeting of the BH3 protein NOXA to PHB. Fluorizoline inhibits protein synthesis and has been used in studies of leukemia.
Targets(IC50)	Apoptosis
In vitro	In primary CLL cells, Fluorizoline (1.25 to 20 μM; 24 hours) significantly reduced cell viability and induced apoptosis in a dose-dependent manner[1].

## Solubility Information

Solubility	DMSO: 30 mg/mL (82.83 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (5.52 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7609 mL	13.8045 mL	27.6091 mL
5 mM	0.5522 mL	2.7609 mL	5.5218 mL
10 mM	0.2761 mL	1.3805 mL	2.7609 mL
50 mM	0.0552 mL	0.2761 mL	0.5522 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Ana M Cosialls, et al. The prohibitin-binding compound fluorizoline induces apoptosis in chronic lymphocytic leukemia cells through the upregulation of NOXA and synergizes with ibrutinib, 5-aminoimidazole-4-carboxamide riboside or venetoclax. *Haematologica*. 2017 Sep;102(9):1587-1593.

Marina Wierz, et al. The prohibitin-binding compound fluorizoline induces apoptosis in chronic lymphocytic leukemia cells ex vivo but fails to prevent leukemia development in a murine model. *Haematologica*. 2018 Apr;103(4):e154-e157.

Sánchez-Vera I, et al. The Prohibitin-Binding Compound Fluorizoline Activates the Integrated Stress Response through the eIF2 $\alpha$  Kinase HRI. *Int J Mol Sci*. 2023 Apr 29;24(9):8064.

Takagi H, et al. Fluorizoline Blocks the Interaction between Prohibitin-2 and  $\gamma$ -Glutamylcyclotransferase and Induces p21Waf1/Cip1 Expression in MCF7 Breast Cancer Cells. *Mol Pharmacol*. 2022 Feb;101(2):78-86.

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