

AMPC

Chemical Properties

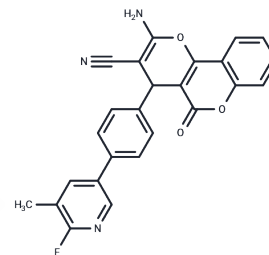
CAS No. : 2254434-33-6

Formula: C₂₅H₁₆N₃O₃

Molecular Weight: 425.41

Storage: Store at low temperature, Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	AMPC is a TFF3 inhibitor with antitumor activity and inhibits tumor growth in vivo. AMPC inhibits cell proliferation and survival in TFF3-positive CMS4 colorectal cancer cells and can be used to study colorectal cancer.
Targets(IC50)	Others
In vitro	The IC ₅₀ values of AMPC in CMS4 CRC cells were determined. We observed that SW620 cells with high TFF3 expression were slightly more sensitive to AMPC than Caco2 cells with low TFF3 expression. SW620 IC ₅₀ =2.63 μM; Caco2 IC ₅₀ =4.65 μM; SW480 IC ₅₀ =69.69 μM. [1]
In vivo	SW620 cells were subcutaneously injected into nude mice. The mice were randomly divided into two groups (n = 8) and intraperitoneally injected daily with AMPC at a dose of 40 mg/kg body weight or equivalent amount of vehicle for two weeks. The average tumour weight of the AMPC -treated group was significantly less than that of the vehicle-treated group. AMPC treatment resulted in larger areas of tumour necrosis and increased area of cells with apoptotic features. AMPC treatment significantly reduced tumour and serum TFF3 levels. [1]

Solubility Information

Solubility	DMSO: 100 mg/mL (235.07 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (11.75 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	2.3507 mL	11.7534 mL	23.5067 mL
5 mM	0.4701 mL	2.3507 mL	4.7013 mL
10 mM	0.2351 mL	1.1753 mL	2.3507 mL
50 mM	0.047 mL	0.2351 mL	0.4701 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

Chen RM, et al. Pharmacological Inhibition of TFF3 Enhances Sensitivity of CMS4 Colorectal Carcinoma to 5-Fluorouracil through Inhibition of p44/42 MAPK. *Int J Mol Sci.* 2019 Dec 9;20(24):6215.

Poh HM, et al. Inhibition of TFF3 Enhances Sensitivity-and Overcomes Acquired Resistance-to Doxorubicin in Estrogen Receptor-Positive Mammary Carcinoma. *Cancers (Basel).* 2019 Oct 10;11(10):1528.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481