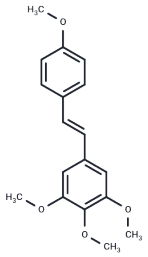
Data Sheet (Cat.No.T36674)

TargetMol

DMU-212

Chemical Properties



CAS No. : 134029-62-2

Formula: C18H20O4

Molecular Weight: 300.35

Storage: 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	DMU-212 is a methylated derivative of resveratrol with antimitotic, anti-proliferative, antioxidant, and apoptosis-promoting activities. It induces mitotic arrest, apoptosis, and activation of ERK1/2 protein and has oral activity[1][2]. DMU-212 (0.3125-40 μM) inhibits the growth of human melanoma cells (A375, MeWo, Bro, M5)[1]. At concentrations of 30-50 μM over 24 hours, it upregulates cell cycle inhibitors, induces apoptosis, and activates ERK in A375 cells[1]. DMU-212 also induces G2/M arrest and apoptosis in cancer cells[1]. In a xenograft model of human ovarian cancer with six-week-old SCID female mice (20-24 g), DMU-212 (50 mg/kg, administered orally three times a week for 14 days) inhibits tumor growth[2]. [1]. Vasilis Pericles Androutsopoulos, et al. Activation of ERK1/2 is required for the antimitotic activity of the resveratrol analogue 3,4,5,4'-tetramethoxystilbene (DMU-212) in human melanoma cells. Exp Dermatol. 2015 Aug;24 (8):632-4. [2]. Hanna Piotrowska, et al. DMU-212 inhibits tumor growth in xenograft model of human ovarian cancer. Biomed Pharmacother. 2014 May;68(4):397-400.
Targets(IC50)	Apoptosis,ERK
In vitro	DMU-212 (0.3125-40 μM) inhibited the proliferation of human melanoma cells at submicromolar or micromolar concentrations with IC50 values of 0.5 μM for A375 and Bro, and 1.25 μM for MeWo and M5 cells, respectively.[2]
In vivo	In SCID female mice, DMU-212 (50 mg/kg; i.g.) inhibited tumor growth and lowered tumor burden[2].

Solubility Information

Solubility	DMSO: 20 mg/mL (66.59 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 (6.66 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3294 mL	16.6472 mL	33.2945 mL
5 mM	0.6659 mL	3.3294 mL	6.6589 mL
10 mM	0.3329 mL	1.6647 mL	3.3294 mL
50 mM	0.0666 mL	0.3329 mL	0.6659 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

Hanna Piotrowska, et al. DMU-212 inhibits tumor growth in xenograft model of human ovarian cancer. Biomed Pharmacother. 2014 May;68(4):397-400.

Vasilis Pericles Androutsopoulos, et al. Activation of ERK1/2 is required for the antimitotic activity of the resveratrol analogue 3,4,5,4'-tetramethoxystilbene (DMU-212) in human melanoma cells. Exp Dermatol. 2015 Aug;24(8):632-4.

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