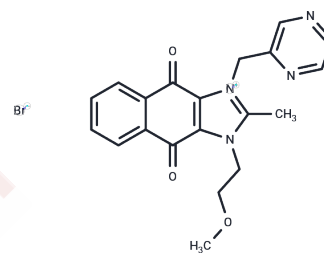


Sepantronium bromide

Chemical Properties

CAS No. :	781661-94-7
Formula:	C ₂₀ H ₁₉ BrN ₄ O ₃
Molecular Weight:	443.26
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Sepantronium bromide (YM155) is a small-molecule proapoptotic agent with potential antineoplastic activity.
Targets(IC50)	Autophagy, Survivin
In vitro	Subcutaneous injection of 3 and 10 mg/kg YM155 into prostate transplantation tumors showed that YM155 completely inhibited the tumor growth of PC-3 with no decrease in weight and no decrease in blood cell count. Moreover, 5 mg/kg YM155 showed 80% tumor inhibition in PC-3 ectopic graft tumors. The combination of YM155 and γ -radiation showed high antitumor activity against H460 or Calu6 xenografts in nude mice.
In vivo	Subcutaneous injection of 3 and 10 mg/kg YM155 into prostate transplantation tumors showed that YM155 completely inhibited the tumor growth of PC-3 with no decrease in weight and no decrease in blood cell count. Moreover, 5 mg/kg YM155 showed 80% tumor inhibition in PC-3 ectopic graft tumors. The combination of YM155 and γ -radiation showed high antitumor activity against H460 or Calu6 xenografts in nude mice.
Kinase Assay	Promoter-luciferase reporter assay: A 2,767-bp sequence of human survivin gene promoter is isolated from human genomic DNA by PCR using Pyrobest polymerase and the following primers: 5
Cell Research	Cells are seeded in 96-well plates at a density of $5-40 \times 10^3$. YM155 is dissolved in DMSO and added to cells for 48 hours. Then the cell count is determined by sulforhodamine B assay. (Only for Reference)

Solubility Information

Solubility	H ₂ O: 82 mg/mL (184.99 mM), Sonication is recommended. Ethanol: 6 mg/mL (13.54 mM), Sonication is recommended. DMSO: 48 mg/mL (108.29 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: 1 mg/mL (2.26 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</i>

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In vivo Formulation	<i>vary and should be modified based on specific experimental conditions.</i>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.256 mL	11.2801 mL	22.5601 mL
5 mM	0.4512 mL	2.256 mL	4.512 mL
10 mM	0.2256 mL	1.128 mL	2.256 mL
50 mM	0.0451 mL	0.2256 mL	0.4512 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

Nakahara T, et al. Cancer Res, 2007, 67(17), 82014-8021.

Gao X, Ren X, Wang F, et al. Immunotherapy and drug sensitivity predictive roles of a novel prognostic model in hepatocellular carcinoma. Scientific Reports. 2024, 14(1): 9509.

Iwasa T, et al. Clin Cancer Res, 2008, 14(20), 6496-6504.

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