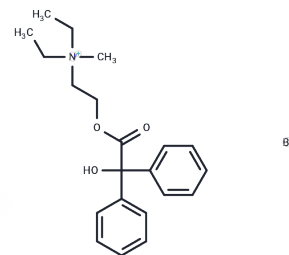


Methylbenactyzium Bromide

Chemical Properties

CAS No. :	3166-62-9
Formula:	C ₂₁ H ₂₈ BrNO ₃
Molecular Weight:	422.36
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	Methylbenactyzium Bromide (Semulgin) is an anticonvulsant that is the active metabolite of trimethadione.
Targets(IC50)	AChR
In vitro	TW-37 targets the BH3-binding groove in Bcl-2 where proapoptotic Bcl-2 proteins bind, and shows higher affinity and selectivity for Bcl-2 and Mcl-1 over Bcl-xL with Ki values of 0.29 μM, 0.26 μM and 1.11 μM, respectively. [1] In vitro, TW-37 shows significant anti-proliferative and pro-apoptotic effect in a de novo chemo-resistant WSU-DLCL2 lymphoma cell line and primary cells obtained from a lymphoma patient without effects on normal peripheral blood lymphocytes. [1] TW-37 exhibits the inhibitory effect on both cell growth and cell death in endothelial cell with IC50 of approximately 1.8 μM without effect on the fibroblasts exposed to the same concentration range as the endothelial cells. In addition, TW37 also shows the anti-proliferation effects in MCF-7, LNCaP, and SLK tumor cell lines with the same or lower concentration range than those required to inhibit endothelial cell growth. [2]

Solubility Information

Solubility	DMSO: 50 mg/mL (118.38 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3676 mL	11.8382 mL	23.6765 mL
5 mM	0.4735 mL	2.3676 mL	4.7353 mL
10 mM	0.2368 mL	1.1838 mL	2.3676 mL
50 mM	0.0474 mL	0.2368 mL	0.4735 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

Bhattacharjee AK,etal.Discovery of subtype selective muscarinic receptor antagonists as alternatives to atropine using in silico pharmacophore modeling and virtual screening methods.Bioorg Med Chem. 2013 May 1;21(9): 2651-62.

Nishikawa M,etal.Analysis of methylbenactyzium bromide in human urine by thin-layer chromatography and pyrolysis gas chromatography.Forensic Sci Int. 1991 Mar;49(2):197-203.

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