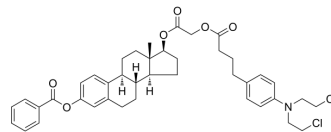


Atrimustine

Cat. No.:	HY-101604		
CAS No.:	75219-46-4		
Molecular Formula:	C ₄₁ H ₄₇ Cl ₂ NO ₆		
Molecular Weight:	720.72		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 16.67 mg/mL (23.13 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.3875 mL	6.9375 mL	13.8750 mL
5 mM	0.2775 mL	1.3875 mL	2.7750 mL
10 mM	0.1388 mL	0.6938 mL	1.3875 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Atrimustine is a conjugate of chlorambucil and β -estradiol benzoate with the antitumor activity.

In Vitro

Atrimustine (Bestrabucil), a conjugate of chlorambucil and β -estradiol benzoate, has high affinity for tumor cells and enhances the antitumor activity of chlorambucil^[1]. The effect of Atrimustine (Bestrabucil), a benzoate of an estradiol-chlorambucil conjugate, is examined on the production of growth factor(s) by Shionogi carcinoma 115 (SC-115) cells, an androgen-responsive cultured cancer cell line. At Atrimustine concentrations of 100 nM-10 μ M, concentration-dependent inhibition of growth factor production by SC-115 cells can be demonstrated by ³H-thymidine uptake assay^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay^[2]

In the culture system containing 10 nM Testosterone, Atrimustine (Bestrabucil) exhibits a statistically significant inhibition of SC-115 cell growth at concentrations of 10 μ M and 1 μ M. Mixtures of Estradiol and Chlorambucil also significantly inhibit the

growth of SC-115 cells at concentrations of 1 μM and 100 nM. The inhibitory effect at day 7 of culture is regarded as similar for 10 μM Atrimustine and 1 μM of the mixture. At 10 μM , Atrimustine inhibits the growth of SC-115 cells to the same degree as the control culture without Testosterone and this concentration of Atrimustine is taken as the IC_{50} . Thus, in experiment 2, 10 μM Atrimustine is used in the CM of SC-115 cells to study the inhibition of growth by Atrimustine [2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Ezaki K, et al. A combination trial of human lymphoblastoid interferon and bestrabucil (KM2210) for adult T-cell leukemia-lymphoma. *Cancer*. 1991 Aug 15;68(4):695-8.
- [2]. Akaza H, et al. Inhibitory effects of bestrabucil, a conjugate of chlorambucil and estradiol, on the production of androgen-induced growth factor(s) by Shionogi carcinoma 115 cells. *Int J Urol*. 1994 Mar;1(1):67-73.
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Caution: Product has not been fully validated for medical applications. For research use only.

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