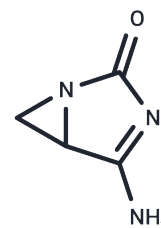


Imexon

Chemical Properties

CAS No. :	59643-91-3
Formula:	C ₄ H ₅ N ₃ O
Molecular Weight:	111.1
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Imexon is an iminopyrrolidone aziridine. It has anti-cancer activity.
Targets(IC50)	Others
In vitro	Imexon induces single-stranded breaks in the human A375 melanoma cells but only obviously at the highest concentrations for each agent compared to controls. Imexon causes oxidative stress in the ER, activates an ER stress response. Imexon does not obviously alter the levels of eIF2B5, however, there is a dose-dependent increase in the phosphorylation of eIF2alpha, as well as an increase in the levels of GTP exchange protein eIF2B2 in MiaPaCa-2, Panc-1, and BxPC3 cells[1]. Imexon plus DTIC cytotoxicity is additive[2]. Imexon display inhibitory activities against MiaPaCa-2, Panc-1 and BxPC3, (IC50s: 275.5 ± 54.2, 147.4 ± 4.7 and 355.7 ± 114.7 μM).[3].
In vivo	When administered at 100 mg/kg, Imexon demonstrates enhanced efficacy in suppressing Panc-1 tumor growth in SCID mice when used alongside GEM, evidencing a synergistic effect. Concurrently, pairing Imexon with DTIC elevates peak plasma levels of Imexon in mice without tumors. This drug duo also augments the plasma Imexon area under the curve (AUC) by 22% (p=0.026). Despite this, a regimen of Imexon (100 mg/kg/day, intravenously) leads to weight loss in SCID mice carrying human A375 melanoma tumors, without significantly impacting tumor progression[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	9.0009 mL	45.0045 mL	90.009 mL
5 mM	1.8002 mL	9.0009 mL	18.0018 mL
10 mM	0.9001 mL	4.5005 mL	9.0009 mL
50 mM	0.180 mL	0.9001 mL	1.8002 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.

Reference

Sheveleva EV, et al. Imexon induces an oxidative endoplasmic reticulum stress response in pancreatic cancer cells. Mol Cancer Res. 2012 Mar;10(3):392-400.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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