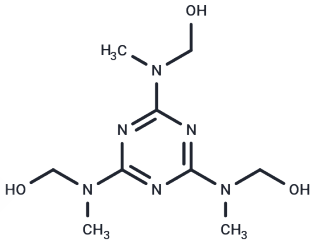
Data Sheet (Cat.No.T211448)

TargetMol

Trimelamol

Chemical Properties



CAS No. : 64124-21-6

Formula: C9H18N6O3

Molecular Weight: 258.28

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	Trimelamol (CB10-375; NSC283162) is an efficient acid-catalyzed DNA interstrand cross-linker with low neurotoxicity due to its limited penetration of the blood-brain barrier. It exhibits antitumor activity and can overcome platinum resistance. Trimelamol is utilized in research concerning lung and ovarian cancers.
Targets(IC50)	DNA Alkylator/Crosslinker
In vitro	Trimelamol exerts cytotoxic effects directly through its N-hydroxymethyl groups, with irreversible toxicity upon drug removal. It acts more rapidly than HMM and PMM. The primary antitumor mechanism of Trimelamol (0.5-500 μM, 1 h) involves DNA cross-linking, significantly at concentrations ≥ 2.5 μM in [32 P-end-labelled] pBR322 plasmid DNA, with higher efficiency under acidic conditions. Trimelamol shows broad-spectrum cytotoxicity and is effective against platinum-resistant ovarian cancer cells (IC 50 range: 8.5-55.4 μM).
In vivo	Trimelamol, administered intraperitoneally at doses of 15-60 mg/kg daily for five times over four weeks, demonstrates efficacy in xenograft mouse models of both platinum-sensitive/resistant ovarian cancer and hormone-dependent breast cancer, with particularly notable results in acquired resistance models. Additionally, Trimelamol (7.5-60 mg/kg, i.p, once daily for five days over a three-week period) when given parenterally, shows significant effectiveness in BALB/c female mice with subcutaneously implanted T-61/MX-1 tumors, but has weaker activity against Br-10 tumors in the same mice model. While it exhibits moderate toxicity at higher doses, its toxicity is manageable at lower concentrations.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8718 mL	19.3588 mL	38.7177 mL
5 mM	0.7744 mL	3.8718 mL	7.7435 mL
10 mM	0.3872 mL	1.9359 mL	3.8718 mL
50 mM	0.0774 mL	0.3872 mL	0.7744 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.