

Product Data Sheet

Triapine

Cat. No.:	B3209
CAS No.:	236392-56-6; 200933-27-3; 143621-35-6
Formula:	C7H9N5S
M.Wt:	195.24
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	DNA Synthesis
Storage:	Store at -20°C



Solvent & Solubility

≥83.33 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	5.1219 mL	25.6095 mL	51.2190 mL
		5 mM	1.0244 mL	5.1219 mL	10.2438 mL
		10 mM	0.5122 mL	2.5610 mL	5.1219 mL

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

Biological Activity

Shortsummary	Ribonucleotide reductase inhibitor			
IC ₅₀ & Target				
In Vitro	Cell Viability Assay			
	<table border="1"> <tr> <td>Cell Line:</td> <td>Wild-type (KB) and HU-resistant (KB/HU) human KB nasopharyngeal carcinoma cells.</td> </tr> <tr> <td>Preparation method:</td> <td>The solubility of this compound in DMSO is > 83.3 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.</td> </tr> </table>	Cell Line:	Wild-type (KB) and HU-resistant (KB/HU) human KB nasopharyngeal carcinoma cells.	Preparation method:
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	Reacting conditions:	37°C
	Applications:	Triapine is found to be a much more potent inhibitor of the enzyme than HU regardless of the cellular source of the enzyme, with a comparable inhibition at roughly a 1000-fold lower concentration of Triapine than HU.
In Vivo	Animal experiment	
	Animal models:	Mice xenografts of murine M109 lung carcinoma and the human A2780 ovarian carcinoma.
	Dosage form:	i.p. or i.v. bolus injection (0.01 mL/g)
	Applications:	Triapine significantly inhibits the growth in mice of the M109 lung carcinoma, the twice daily schedule produces tumor growth delays of 10 days compared to untreated control animals. Growth of the human A2780 ovarian carcinoma xenograft in nude mice is also significantly inhibited by Triapine, at 8 and 10 mg/kg given on a twice daily schedule.
	Preparation method:	Triapine in 0.9% NaCl
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

1. Finch RA, Liu M, Grill SP et al. Triapine (3-aminopyridine-2-carboxaldehyde-thiosemicarbazone): A potent inhibitor of ribonucleotide reductase activity with broad spectrum antitumor activity. *Biochem Pharmacol.* 2000 Apr 15;59(8):983-91.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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