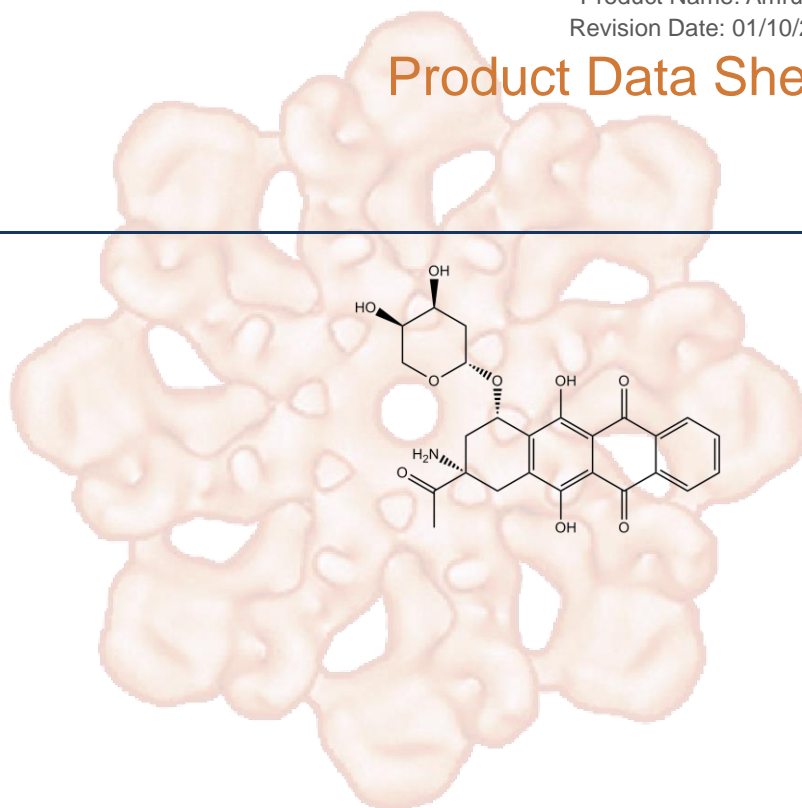


Product Data Sheet

Amrubicin

Cat. No.:	A8227
CAS No.:	110267-81-7
Formula:	C ₂₅ H ₂₅ NO ₉
M.Wt:	483.47
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	Topoisomerase
Storage:	Store at -20°C



Solvent & Solubility

≥ 16.45mg/mL in DMSO, insoluble in EtOH, insoluble in H₂O

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.0684 mL	10.3419 mL	20.6838 mL
	5 mM		0.4137 mL	2.0684 mL	4.1368 mL
	10 mM		0.2068 mL	1.0342 mL	2.0684 mL

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

Biological Activity

Shortsummary

Topoisomerase II inhibitor, anthracycline agent

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	CCRF-CEM cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. 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.
Reacting conditions:	IC 50: 3.3 μM, 1 hour
Applications:	Amrubicin induced DNA-protein complex formation in cultured CCRF-CEM

cells in a dose-dependent manner. The IC50 value of amrubicin required to inhibit the growth of CCRF-CEM cells was 3.3 μ M. Accordingly, under conditions where cell growth was inhibited by amrubicin, considerable amounts of DNA-protein complexes were formed.

Animal experiment

Animal models: BALB/c nu/nu mice bearing Lu-24 or Lu-134 cells

Dosage form: Intravenous injection, 25 mg/kg

Applications: Amrubicin showed significant antitumor activities against both SCLC tumors tested, Lu-24 and Lu-134, with T/C-values at day 14 of 17% and 9%, respectively.

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.

In Vivo

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Hanada M, Mizuno S, Fukushima A, et al. A New Antitumor Agent Amrubicin Induces Cell Growth Inhibition by Stabilizing Topoisomerase II-DNA Complex. *Cancer Science*, 1998, 89(11): 1229-1238.

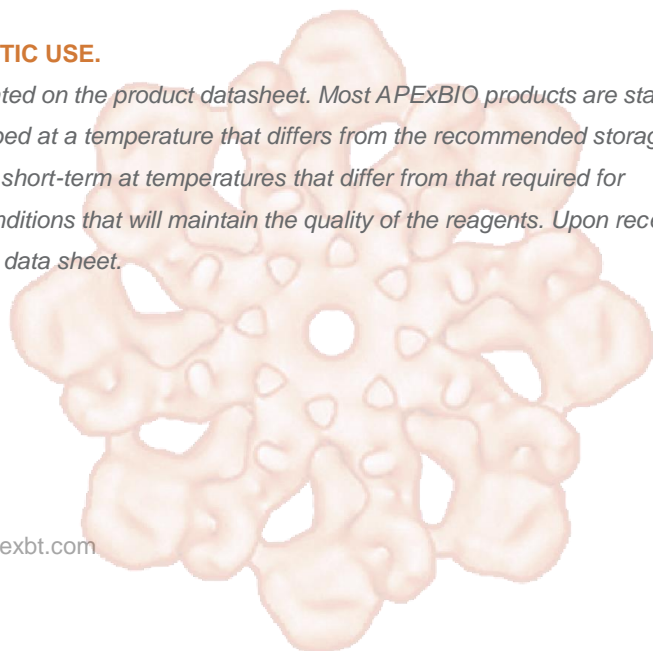
[2] Hanada M, Noguchi T, Yamaoka T. Amrubicin, a novel 9-aminoanthracycline, enhances the antitumor activity of chemotherapeutic agents against human cancer cells in vitro and in vivo. *Cancer science*, 2007, 98(3): 447-454.

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. Shortterm 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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