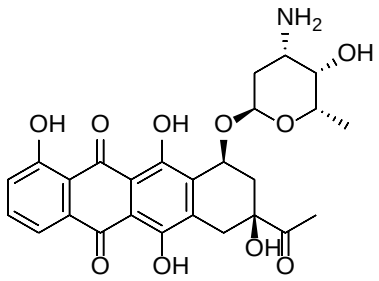
Product data sheet

MedKoo Cat#: 406273 Name: Carubicin CAS#: 50935-04-1 (free base) Chemical Formula: $C_{26}H_{27}NO_{10}$ Exact Mass: 513.1635 Molecular Weight: 513.49	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
Carubicin is an anthracycline antineoplastic antibiotic isolated from the bacterium Actinomadura carminata. Carubicin intercalates into DNA and interacts with topoisomerase II, thereby inhibiting DNA replication and repair and RNA and protein synthesis.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.95 mL	9.74 mL	19.47 mL
5 mM	0.39 mL	1.95 mL	3.89 mL
10 mM	0.19 mL	0.97 mL	1.95 mL
50 mM	0.04 mL	0.19 mL	0.39 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Woldemichael GM, Turbyville TJ, Linehan WM, McMahon JB. Carminomycin I is an apoptosis inducer that targets the Golgi complex in clear cell renal carcinoma cells. Cancer Res. 2011 Jan 1;71(1):134-42. doi: 10.1158/0008-5472.CAN-10-0757. PMID: 21199801; PMCID: PMC3074515.

In vivo study

TBD

7. Bioactivity
Biological target:

In vitro activity

CA (Carubicin) induced apoptosis in CCRCC (clear cell renal cell carcinoma) cells by a mechanism independent of p53 or hypoxia-inducible factor 2. P-glycoprotein (P-gp) sequestered CA within the Golgi complex. Interestingly, Golgi sequestration was critical for the antiproliferative effects of CA and P-gp inhibitors abrogated this activity. Furthermore, CA induced cleavage of the Golgi protein p115 and the translocation of its C-terminal fragment to the nucleus. Finally, examination of the activity of the VHL-interacting Golgi protein, endoplasmic reticulum-Golgi intermediate compartment, ERGIC-53 showed that VHL could mediate protection from CA in CCRCC cells.

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Reference: Cancer Res. 2011 Jan 1;71(1):134-42. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3074515/

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.