

## Product Specification Sheet

**Product Name:** Daunorubicin hydrochloride

**Catalog Number:** C3286

### Technical information:

Chemical Formula:  $C_{27}H_{29}NO_{10} \cdot HCl$

CAS #: 23541-50-6

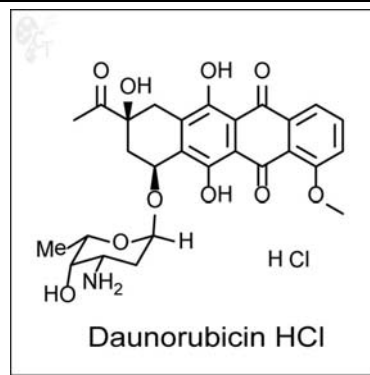
Molecular Weight: 563.98

Purity: > 98%

Appearance: orange red solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: (8S,10S)-8-acetyl-10-(((2R,4S,5S,6S)-4-amino-5-hydroxy-6-methyltetrahydro-2H-pyran-2-yl)oxy)-6,8,11-trihydroxy-1-methoxy-7,8,9,10-tetrahydrotetracene-5,12-dione, monohydrochloride



**Storage:** Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

**Shelf Life:** In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

- Handling:**
- To make 10 mM stock solution, add 0.177mL of DMSO for each mg of Daunorubicin hydrochloride.
  - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

**Biological Activity:** Daunorubicin is an anthracycline drug used that killing cells by inhibiting DNA and RNA synthesis. It intercalates between base pairs and interacts with topoisomerase II, therefore inhibiting DNA replication and repair and RNA synthesis. Daunorubicin was initially isolated from *Streptomyces peucetius*.

In vitro, daunorubicin inhibits the proliferation of various tumor cells at micromolar level. (1)  
Clinically, it has been used in treating certain types of acute leukemia and neuroblastoma.

- Reference:** 1. Gewirtz DA, A critical evaluation of the mechanisms of action proposed for the antitumor effects of the anthracycline antibiotics adriamycin and daunorubicin. *Biochem Pharmacol.* 1999;57(7):727-41. Pubmed ID: 10075079

To reorder: <http://www.cellagentech.com/Daunorubicin-hydrochloride/>

For Technical Support: [technical@cellagentech.com](mailto:technical@cellagentech.com)

*Chemicals are sold for research use only, not for clinical or diagnostic use.*