

Product Specification Sheet

Product Name: Pirarubicin

Catalog Number: C7461

Technical information:

Chemical Formula: $C_{32}H_{37}NO_{12}$

CAS #: 72496-41-4

Molecular Weight: 627.64

Purity: > 98%

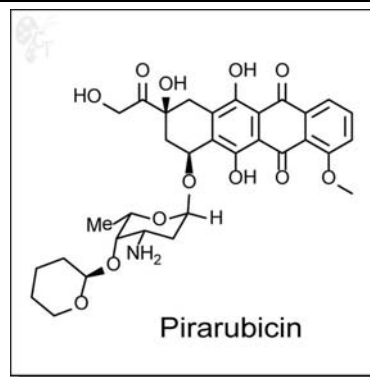
Appearance: orange red solid

Solubility: Soluble in DMSO up to 100 mM

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

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 0.159mL of DMSO for each mg of Pirarubicin.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Pirarubicin is an anthracycline drug used to treat various types of cancer. It intercalates between base pairs and interacts with topoisomerase II, therefore inhibiting DNA replication and repair and RNA synthesis. Compared with its analog Adriamycin (Doxorubicin), Pirarubicin is less cardiotoxic than doxorubicin and exhibits activity against some doxorubicin-resistant cell lines. (1,2)

- Reference:**
1. Hirano S et al., Comparison of cardiotoxicity of pirarubicin, epirubicin and doxorubicin in the rat. *Drugs Exp Clin Res.* 1994, 20(4):153-60. Pubmed ID: 7813387
 2. Schott B and Robert J., Comparative cytotoxicity, DNA synthesis inhibition and drug incorporation of eight anthracyclines in a model of doxorubicin-sensitive and -resistant rat glioblastoma cells. *Biochem Pharmacol.* 1989, 38(1):167-72. Pubmed ID: 2910297

To reorder: <http://www.cellagentech.com/Pirarubicin/>

For Technical Support: technical@cellagentech.com

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