



LKT Laboratories, Inc.

Pirarubicin

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID P3568

CAS No. 72496-41-4

Chemical Name (7S,9S)-7-[(2R,4S,5S,6S)-4-amino-6-methyl-5-[(2S)-oxan-2-yl]oxyoxan-2-yl]oxy-6,9,11-trihydroxy-9-(2-hydroxyacetyl)-4-methoxy-8,10-dihydro-7H-tetracene-5,12-dione

Synonym THP

Formula C₃₂H₃₇NO₁₂

Formula Wt. 627.64

Melting Point 188-192 °C (dec.)

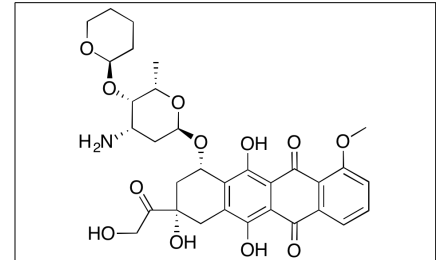
Purity ≥90%

Solubility

Store Temp Ambient

Ship Temp Ambient

Description Pirarubicin is an anthracycline derivative of adriamycin that is clinically co-administered with other anticancer chemotherapeutics in the treatment of a variety of cancers. Pirarubicin is a DNA intercalator that inhibits topoisomerase II and DNA polymerase, inhibiting synthesis of DNA in vitro and in vivo. Pirarubicin induces G2 phase cell cycle arrest, inhibiting tumor growth and increasing survival rates in animal models of colon cancer. Additionally, pirarubicin induces endothelium-dependent relaxation of aortic tissue, likely due to modulation of signaling by endothelium-derived relaxing factor (EDRF).



Bulk quantities available upon request

Product ID	Size
P3568	5 mg
P3568	10 mg
P3568	25 mg

References Hiyama E, Ueda Y, Onitake Y, et al. A cisplatin plus pirarubicin-based JPLT2 chemotherapy for hepatoblastoma: experience and future of the Japanese Study Group for Pediatric Liver Tumor (JPLT). *Pediatr Surg Int.* 2013 Oct;29(10):1071-5. PMID: 24026876.

Kataoka K, Naomoto Y, Muro M, et al. Antitumor effect of pirarubicin (THP) against human colon cancer transplanted into nude mice and the mechanism of cell cycle progression. *Gan To Kagaku Ryoho.* 1992 Mar;19(3):367-71. PMID: 1543363.

Hirano S, Agata N, Hara Y, et al. Pirarubicin-induced endothelium-dependent relaxation in rat isolated aorta. *J Pharm Pharmacol.* 1991 Dec;43(12):848-54. PMID: 1687584.

Schott B, 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 Jan 1;38(1):167-72. PMID: 2910297.

Tanaka M, Yoshida S, Kimura K. Mechanism of inhibition of DNA polymerases by 4'-epiadriamycin and 4'-O-tetrahydropyranlyadriamycin. *Gann.* 1983 Dec;74(6):829-36. PMID: 6365674.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.