

Product Name:	Daunorubicin hydrochloride
Product Number:	D001
CAS Number:	23541-50-6
Molecular Formula:	$C_{27}H_{29}NO_{10} \cdot HCl$
Molecular Weight:	563.98
Form:	Powder
Appearance:	Orange-red crystalline powder
Solubility:	1mg/mL in H ₂ O: Clear and red or orange solution
Source:	<i>Streptomyces peucetius</i>
Water Content (Karl Fischer):	≤3.0%
pH:	4.5-6.5
Storage Conditions:	2-8°C.
Description:	<p>Daunorubicin HCl is a water soluble anthracycline chemotherapeutic agent produced by <i>Streptomyces coeruleorubidus</i>.</p> <p>This product is considered a dangerous good. Quantities above 1 g may be subject to additional shipping fees. Please contact us for specific questions.</p>
Mechanism of Action:	Daunorubicin acts as a polymerase inhibitor and demonstrates DNA intercalation activity which effectively inhibits cancer progress.
Cancer Applications	Daunorubicin HCl has shown to be useful for treatment of acute myeloid leukemia.
References:	<p>Mizuno, N.S., et al., Binding of daunomycin to DNA and the inhibition of RNA and DNA synthesis. <i>Cancer Res.</i> 35, 1542-1546, (1975) <u>Abstract</u></p> <p>Tan C, Tasaka H, Yu KP, Murphy ML, Karnofsky DA (March 1967). "Daunomycin, an antitumor antibiotic, in the treatment of neoplastic disease. Clinical evaluation with special reference to childhood leukemia". <i>Cancer</i> 20 (3): 333-53</p> <p>Fornari FA, Randolph JK, Yalowich JC, Ritke MK, Gewirtz DA (April 1994). "Interference by doxorubicin with DNA unwinding in MCF-7 breast tumor cells". <i>Mol Pharmacol</i> 45 (4): 649-56</p>