HANGZHOU DINGYAN CHEM CO.,LTD
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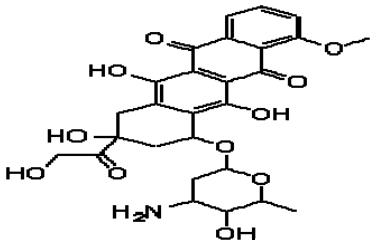
# CERTIFICATE OF ANALYSIS

**NO: DYC021403052**

| | |
|---|---|
| Product name | **Doxorubicin hydrochloride** |
| **CAS Number** | **25316-40-9** |
| **Molecule Structure** |  |
| **Molecule Formula** | **C27H30ClNO11** |
| **Batch number** | **20130308** |
| **Manuf. Date:** | **2013-03-08** |
| **Retesting Date:** | **2013-03-08** |

| Items | Standard | Result |
|---|---|---|
| **Appearance** | **Orange red powder** | **Orange red powder** |
| **Identification** | **IR** | **Conforms** |
| **Melting point** | **198~203℃** | **198.6~199.8℃** |
| **Crystallinity** | **Meets the requirements** | **-187.1°** |
| **Water** | **≤4.0%** | **1.2%** |
| **Residue on ignition** | **≤0.1%** | **0.04%** |
| **Heavy metals** | **≤0.001%** | **<0.001%** |
| **Limit of solvent residues**<br>**Acetone**<br>**Total of acetone and alcohol**<br>**Total impurities** | <br>**≤0.5%**<br>**≤2.5%**<br>**≤2.0%** | <br>**Conforms**<br>**Conforms**<br>**1.4%** |
| **Assay (HPLC)** | **98.0%-102.0%** | **99.4%** |
| **PH** | **4.5- 5.5** | **5.0** |
| **Solubility** | **Soluble in water, in isotonic sodium chloride solution and in methanol. practically insoluble in chloroform, in ether and in other organic solvents** | **Conforms** |

Hangzhou Dingyan Chem Co.,Ltd. Quality Control

**QUALITY CONTROL:** Xuefen Chen **CHECK:**姚仙娟 **INSPECTOR:** 刘清风

ADD:RM 1118, NO.I BUILDING, BAIYUN TOWER, JIANGGAN AREA, HANGZHOU CITY, CHINA