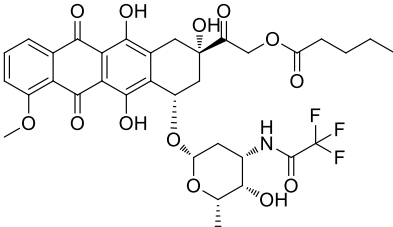




## Certificate of Analysis

|                     |                      |             |
|---------------------|----------------------|-------------|
| <b>MedKoo Cat#:</b> | <b>Product Name:</b> | <b>Lot#</b> |
| 100910              | Valrubicin           | TZC40613    |

|   |   |
|---|---|
| <b>Chemical name</b>  |   |
| 2-oxo-2-((2S,4S)-2,5,12-trihydroxy-4-(((2S,4S,5S,6S)-5-hydroxy-6-methyl-4-(2,2,2-trifluoroacetamido)tetrahydro-2H-pyran-2-yl)oxy)-7-methoxy-6,11-dioxo-1,2,3,4,6,11-hexahydrotetracen-2-yl)ethyl pentanoate |   |
| <b>Synonyms</b>   |   |
| US brand name: Valstar. Foreign brand name: Valtaxin. Code name: AD 32. Chemical structure name: N-trifluoroacetyladiamycin-14-valerate.  |   |
| <b>Chemical structure</b>   | <b>CAS# and Theoretical analysis</b>  |
|   | MedKoo Cat#: 100910<br>Name: Valrubicin<br>CAS#: 56124-62-0<br>Lot#: TZC40613<br>Chemical Formula: C <sub>34</sub> H <sub>36</sub> F <sub>3</sub> NO <sub>13</sub><br>Exact Mass: 723.21387<br>Molecular Weight: 723.64 |

| <b>Analysis item</b>      | <b>Specifications/Results</b>  |
|---------------------------|--|
| <b>Appearance</b>         | Red solid powder   |
| <b>Structure</b>          | <sup>1</sup> H-NMR analysis matches the structure. MS analysis gives the correct molecule weight. Both NMR and MS data are consistent with those reported in the literature. |
| <b>Purity (HPLC)</b>      | >99.0%   |
| <b>Solubility</b>         | Soluble in DMSO  |
| <b>Conclusion</b>         | This product conforms with MedKoo's quality standards  |
| <b>Shipping condition</b> | Shipped under ambient temperature as non-hazardous chemical. This product is stable for a few weeks during ordinary shipping and time spent in Customs.                      |
| <b>Storage condition</b>  | Short term storage (weeks): 0 – 4 °C under dry condition<br>Long term storage (months): -20 °C under dry condition   |
| <b>Self life</b>          | At least 5 years if properly stored.   |

**CAUTION: NOT FULLY TESTED. FOR RESEARCH ONLY, NOT FOR HUMAN USE**