

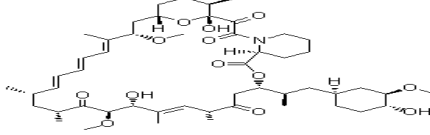


HAIQIANG CHEMICALS CO., LTD

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CERTIFICATE OF ANALYSIS

NO: HQC081112103

| | |
|-----------------------|--|
| Product name | Rapamycin |
| CAS Number | 53123-88-9 |
| Molecule Structure |  |
| Molecule Formula | C ₅₁ H ₇₉ NO ₁₃ |
| Batch number | 20111210 |
| Manuf. Date&Exp.Date: | 2011-12-10,2013-12-09 |
| Testing Date: | 2011-12-10 |

| Items | Standard | Result |
|--|--|----------|
| Description | An odorless,white to off-white crystalline powder | Conforms |
| Identification | 1.Exhibit maxima at 267nm,277nm and 288nm 2.The retention times of the peaks for the cis-and trans-stereo isomers in the Chromatogram of the assay preparation corresponds to those of the Standard preparation as obtained in the Assay respectively. 3.The infrared absorption spectrum is concordant with the spectrum of sirolimus reference standard. | Conforms |
| Assay | 99%min | 99.5% |
| Heavy metals | ≤20ppm | Conforms |
| Water | ≤0.5% | 0.1% |
| Ratio of isomer Trans-stereo isomer | ≥95.0% | 98.2% |
| Impurity | ≤2.0% | 0.23% |

HAIQIANG CHEMICALS CO.LTD
QUALITY CONTROL:
QUALITY CONTROL DEP.

CHECK:姚仙娟

INSPECTOR: 刘清风

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