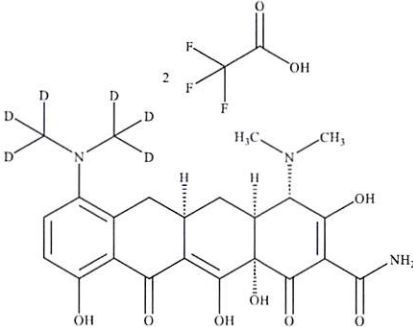


Certificate of Analysis



Certificate No.: 20251216018

Date: December 16, 2025

Retest date: December 12, 2028

| | | | |
|-----------------------|--|--|--|
| Compound Name: | | Minocycline-d ₆ Ditrifluoroacetate | |
| Synonyms: | | (4S,4aS,5aR,12aS)-7-(bis(methyl-d ₃)amino)-4-(dimethylamino)-3,10,12,12a-tetrahydroxy-1,11-dioxo-1,4,4a,5,5a,6,11,12a-octahydrotetracene-2-carboxamide, 2,2,2-trifluoroacetic acid (1:2) | |
| TLC Catalogue Number: | | M-341 |  |
| CAS Number: | | N/A | |
| Alternate CAS Number: | | 1036070-10-6 (free base) | |
| Molecular Weight: | | 463.52 2*114.02 | |
| Molecular Formula: | | C ₂₃ H ₂₁ D ₆ N ₃ O ₇ · 2 C ₂ HF ₃ O ₂ | |
| Source: | | TLC Pharmaceutical Standards | |
| Source Lot No.: | | 7189-028A8 | |
| Storage Conditions: | | Store at 2-8 °C | |
| Solubility: | | Methanol, DMSO | |

| Test Description | Specifications | Results |
|--|--|--|
| Visual Description | Orange solid | Conforms |
| Identification IR MS ¹ H NMR ¹⁹ F NMR | Conforms to structure Conforms to structure Conforms to structure Conforms to structure | Conforms Conforms Conforms Conforms |
| Purity (HPLC) | Not less than 95.0% | 98.6% |
| Impurity (HPLC) | RT 11.26, 1.36% | |
| Isotopic Enrichment | Not less than 98.0% | 99.5% |
| Optical Rotation | N/A | [α] _D ^{20.0} (c=0.37, DMSO): -147.0° |
| Residual Solvents (NMR) | No residual solvent | |
| Assay (qNMR) | Not less than 90.0% | 91.6% |
| Recommendation: | Release. | |

| Name | Department | Signature | Date |
|---------------------------|-------------------|--|------------|
| Reviewed and approved by: | Quality Control |  | 12/16/2025 |
| Approved by: | Quality Assurance |  | 12/16/2025 |

Attachments: Peak Attribution Table, Assay Calculation, HPLC, IR, MS and NMR spectra.