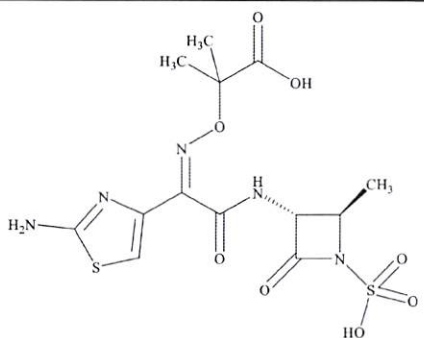


## Certificate of Analysis



Certificate No.: 20250414011

Date: April 14, 2025

Retest date: April 11, 2028

|                              |   |  |
|------------------------------|---|--|
| <b>Compound Name:</b>        | <b>Aztreonam Impurity 8</b>   |  |
| <b>Synonyms:</b>             | 2-((((Z)-1-(2-aminothiazol-4-yl)-2-(((2R,3R)-2-methyl-4-oxo-1-sulfoazetidin-3-yl)amino)-2-oxoethylidene)amino)oxy)-2-methylpropanoic acid |  |
| <b>TLC Catalogue Number:</b> | A-108016  |  |
| <b>CAS Number:</b>           | N/A   |  |
| <b>Alternate CAS Number:</b> | N/A   |  |
| <b>Molecular Weight:</b>     | 435.43  |  |
| <b>Molecular Formula:</b>    | C <sub>13</sub> H <sub>17</sub> N <sub>5</sub> O <sub>8</sub> S <sub>2</sub>  |  |
| <b>Source:</b>               | TLC Pharmaceutical Standards  |  |
| <b>Source Lot No.:</b>       | 3534-043A2  |  |
| <b>Storage Conditions:</b>   | Store at 2-8 °C   |  |
| <b>Solubility:</b>           | Methanol, DMSO, DMF   |  |

| Test Description               | Specifications                                  | Results   |
|--------------------------------|---|---|
| <b>Visual Description</b>      | White to off-white solid                        | <b>Conforms</b>                                       |
| <b>Identification</b>          |   |   |
| IR                             | Conforms to structure                           | <b>Conforms</b>                                       |
| MS                             | Conforms to structure                           | <b>Conforms</b>                                       |
| <sup>1</sup> H NMR             | Conforms to structure                           | <b>Conforms</b>                                       |
| <b>Elemental Analysis</b>      | Conforms to structure                           | <b>Conforms</b>                                       |
| <b>Purity (HPLC)</b>           | Not less than 95.0%                             | <b>98.5%</b>  |
| <b>Impurity (HPLC)</b>         | RT 5.25, 0.60%; RT 5.71, 0.27%; RT 13.04, 0.29% |   |
| <b>Purity (Chiral HPLC)</b>    | Not less than 98.0%                             | <b>100.0%</b>   |
| <b>Water Content (KF)</b>      | N/A   | <b>3.6%</b>   |
| <b>Optical Rotation</b>        | N/A   | $[\alpha]_D^{25.0}(c=0.53, \text{DMSO}): +37.8^\circ$ |
| <b>Residual Solvents (NMR)</b> | 1.1% acetonitrile                               |   |
| <b>Assay (%)</b>               | Not less than 90.0%                             | <b>93.9%</b>  |
| <b>Recommendation:</b>         | <b>Release.</b>                                 |   |

| Name                      | Department        | Signature  | Date       |
|---------------------------|-------------------|--|------------|
| Reviewed and approved by: | Quality Control   |  | 04/14/2025 |
| Approved by:              | Quality Assurance |  | 04/14/2025 |

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