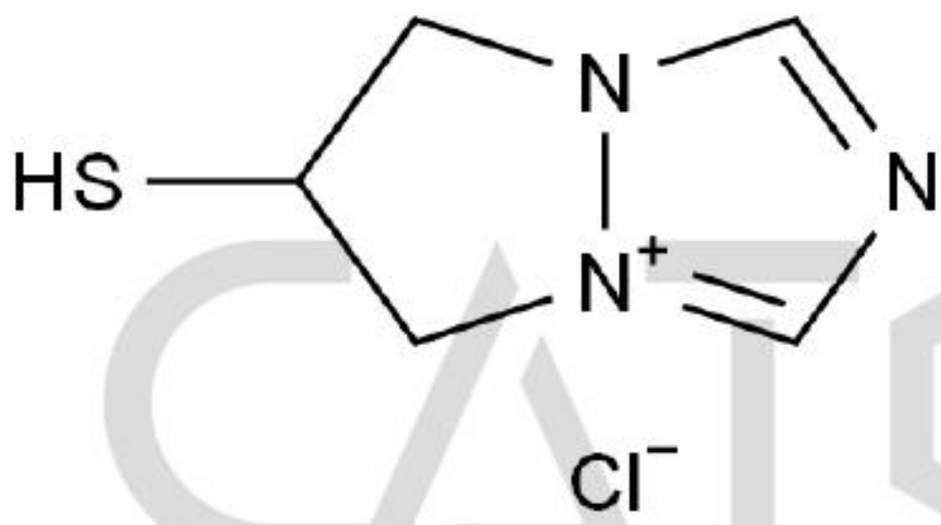
# Certificate of Analysis

## Reference Material & Standard

| | | | |
|---|---|---|---|
| **Product Name:** | Biapenem Impurity 21 | **Catalogue Number:** | C4X-227321 |
| **Synonyms:** | N/A | **Lot Number:** | 1127-SA-7807 |
| **CAS Number:** | 153851-71-9 | **Expiry Date:** | Nov 27, 27 |
| **Molecular Formula:** | $C_5H_8N_3S\ Cl$ | **Storage:** | -20°C±5°C Protected from light and Sealed |
| **Molecular Weight:** | 142.20 35.45 | | |

**Chemical Structure:**




| Test Items | Method | Results |
|---|---|---|
| **Appearance** | Visual inspection | White to Off-White Waxy Solid |
| **Identification:** | LC&HNMR | Confirmed |
| **Purity:** | HPLC | 97.247% |

CATO Research Chemicals Inc.

**Signature:**

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Date: Nov 27, 25  Date: Nov 27, 25  Date: Nov 27, 25

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ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-2832

ISO 9001:2000 SGS

Official WeChat

## Directions:

*1. Intended use: This product is suitable for identification and quantification of the analyte(s), instrument calibration, method development and quality control in analytical and R&D applications. It is not intended for administration to humans or animals, and shall not be used to diagnose, treat or cure any diseases.*

*2. Minimum sample size: 1mg is recommended as the minimum sample size.*

*3. Metrological traceability: This product meets the requirements of ISO 17034 and is traceable to NMI through an unbroken chain of comparisons.*

*4. Instructions for handling and correct use: Handling in a well-ventilated place.*

## Document Version:

| Revision No. | Date | Reason for Revision |
|---|---|---|
| 01 | Nov 27, 25 | First release. |

CATO Research Chemicals Inc.