

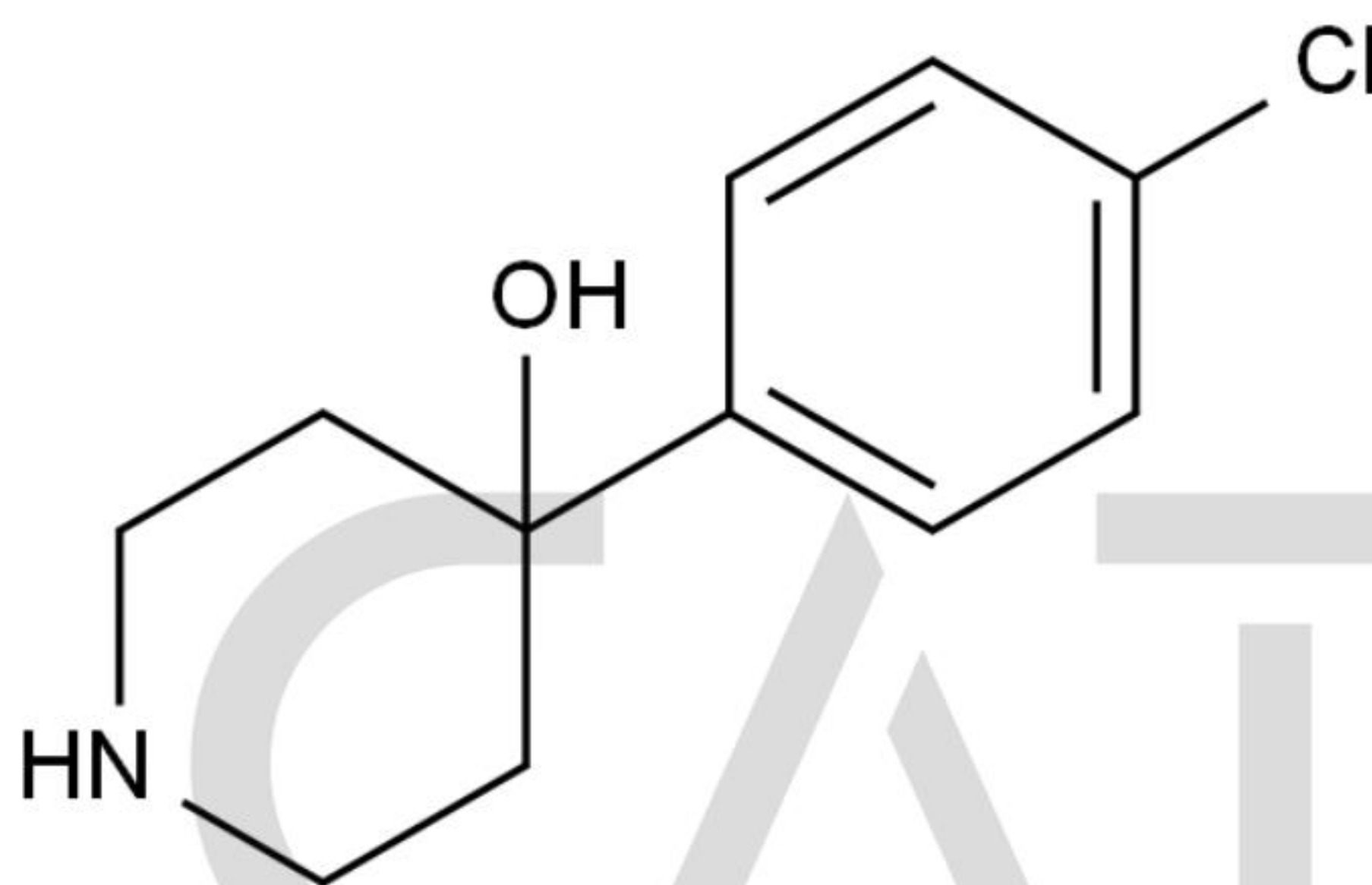
# Certificate of Analysis

## Reference Material & Standard

|                           |                                      |                          |                                           |
|---------------------------|--------------------------------------|--------------------------|-------------------------------------------|
| <b>Product Name:</b>      | Loperamide EP Impurity C             | <b>Catalogue Number:</b> | C4X-17883                                 |
| <b>Synonyms:</b>          | 4-(4-Chlorophenyl)piperidin-4-ol     | <b>Lot Number:</b>       | 0528-RG-0004                              |
| <b>CAS Number:</b>        | 39512-49-7                           | <b>Expiry Date:</b>      | May 27, 2028                              |
| <b>Molecular Formula:</b> | C <sub>11</sub> H <sub>14</sub> ClNO | <b>Storage:</b>          | 2°C ~ 8°C Protected from light and Sealed |
| <b>Molecular Weight:</b>  | 211.69                               | <b>Warning:</b>          |                                           |



Chemical Structure:



| Test Items     | Method            | Results            |
|----------------|-------------------|--------------------|
| Appearance     | Visual inspection | Light Yellow Solid |
| Identification | LCMS&HNMR         | Confirmed          |
| Purity         | HPLC              | 99.7%              |
| Assay          | qNMR              | 94.6%              |

## Comment:

Assay was determined by quantitative <sup>1</sup>H-NMR.

## Signature:

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Approved by General Manager:

*David*

Date: May 28, 2025

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