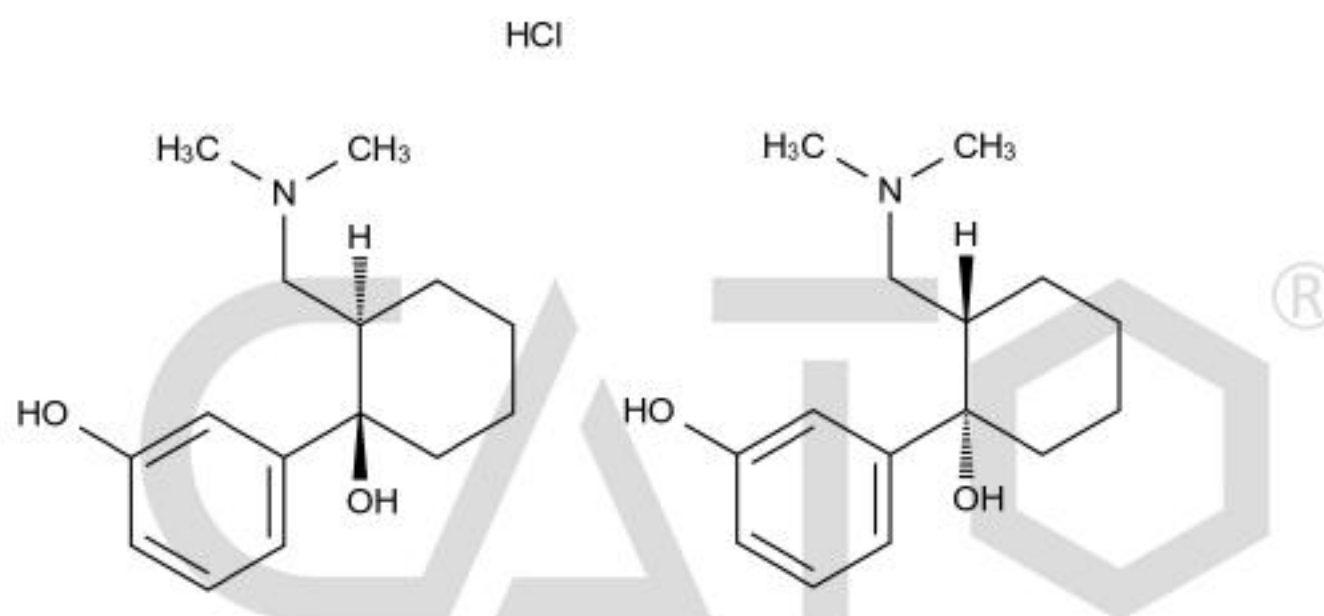


# Certificate of Analysis

## Reference Material & Standard

|                           |                                                       |                          |                                           |
|---------------------------|-------------------------------------------------------|--------------------------|-------------------------------------------|
| <b>Product Name:</b>      | Tramadol EP Impurity D ( and Enantiomer)Hydrochloride | <b>Catalogue Number:</b> | C4X-149819                                |
| <b>Synonyms:</b>          | N/A                                                   | <b>Lot Number:</b>       | 0201-SA-7970                              |
| <b>CAS Number:</b>        | 80456-81-1(free base)                                 | <b>Expiry Date:</b>      | Jan 31, 28                                |
| <b>Molecular Formula:</b> | 2*C <sub>15</sub> H <sub>23</sub> NO <sub>2</sub> HCl | <b>Storage:</b>          | 2°C ~ 8°C Protected from light and Sealed |
| <b>Molecular Weight:</b>  | 2*249.35 36.46                                        |                          |                                           |

## Chemical Structure:



| Test Items      | Method            | Results   |
|-----------------|-------------------|-----------|
| Appearance      | Visual inspection | Solid     |
| Identification: | LC&HNMR           | Confirmed |
| Purity:         | HPLC              | 97.901%   |

## Signature:

Prepared by:

*Lisa*

Reviewed by:

*Yuki*

Approved by General Manager:

*David*

Date: Feb 01, 24

Date: Feb 01, 24

Date: Feb 01, 24



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## 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           | Feb 01, 24 | First release.      |

