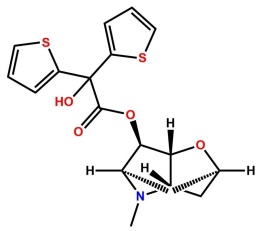
# CERTIFICATE OF ANALYSIS

**Date:** 04-11-2026

| | | | |
|---|---|---|---|
| **Product Name** | **Tiotropium Impurity M** | | |
| **Chemical Name** | (2S,3aS,5R,6R,6aR)-4-methylhexahydro-2H-2,5-methanofuro[3,2-b]pyrrol-6-yl 2-hydroxy-2,2-di(thiophen-2-yl)acetate | | |
| **Structure** |  | | |
| **Batch No.** | - | **CAS No.** | NA |
| **Analysis Date** | - | **Retest Date** | - |
| **Mol. Formula** | $C_{18}H_{19}NO_4S_2$ | **Molecular Wt.** | 377.5 |
| **Long term Storage Condition** | | Store at 2-8 °C in well closed container | |
| **Handling and Transit Condition** | | 25-30 °C in well closed container | |

| **Test** | **Result** |
|---|---|
| Appearance | - |
| Solubility | - |
| 1H-NMR | Conforms to structure |
| MASS | Conforms to structure |
| Chromatographic Purity | >90% |
| **Note: This material should be used for research purpose and not for human or animal consumption. Any patent applicable for this product in any country is not applicable for this analytical standard/research chemical.** | |

| | **Prepared By** | **Checked By** | **Approved By** |
|---|---|---|---|
| **Signature** | | | |
| **Date** | | | |

Sample COA

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