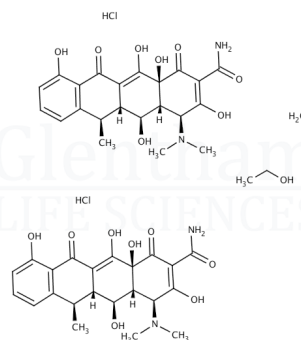


## Certificate of Analysis

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Product Name      | Doxycycline hyclate                                           |
| Glentham Code     | GA1726                                                        |
| CAS Number        | 24390-14-5                                                    |
| MDL Number        | MFCD07357237                                                  |
| Additional CAS    | 10592-13-9 (· HCl)                                            |
| Additional CAS    | 564-25-0                                                      |
| PubChem SID       | 310272426                                                     |
| Batch Number      | 162IAR                                                        |
| Molecular Weight  | 512.94                                                        |
| Molecular Formula | $C_{22}H_{24}N_2O_8 \cdot HCl \cdot 0.5H_2O \cdot 0.5C_2H_6O$ |
| Storage Temp.     | +4°C                                                          |



| Property                       | Specification                                                                                      | Batch 162IAR              |
|--------------------------------|----------------------------------------------------------------------------------------------------|---------------------------|
| Physical Description           | Yellow, crystalline powder, hygroscopic                                                            | Yellow crystalline powder |
| Identification                 | EP                                                                                                 | Conforms                  |
| pH (1% solution)               | 2.0 - 3.0                                                                                          | 2.6                       |
| Specific Optical Rotation      | -105 - -120 °                                                                                      | -110°                     |
| Specific Absorbance            | 300 - 335 (at 349nm)                                                                               | 315                       |
| Light-Absorbing Impurities     | ≤ 0.07 (at 490nm)                                                                                  | 0.01                      |
| Related Substances             | 6-Epidoxycycline: ≤ 2.0%                                                                           | Conforms                  |
|                                | Metacycline: ≤ 2.0%                                                                                | Conforms                  |
|                                | Any Individual Impurity: ≤ 0.5%                                                                    | Conforms                  |
| Ethanol                        | 4.3 - 6.0 %                                                                                        | 4.5%                      |
| Heavy Metals                   | ≤ 50ppm                                                                                            | Conforms                  |
| Water                          | 1.4 - 2.8 %                                                                                        | 2.1%                      |
| Sulphated Ash                  | ≤ 0.4%                                                                                             | Conforms                  |
| Assay                          | 95.0 - 102.0 % (C <sub>22</sub> H <sub>25</sub> ClN <sub>2</sub> O <sub>8</sub> , anhydrous basis) | 97.7%                     |
| Pharmacopoeia Specification(s) | EP                                                                                                 | Conforms                  |

|                       |            |
|-----------------------|------------|
| Specification Version | v1.0       |
| Manufacture Date      | 2021-02-10 |
| Re-Test Date          | 2027-02-26 |

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check [www.glentham.com](http://www.glentham.com) or contact us using the details above for the current version of this document.

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