

## Health Products Regulatory Authority

CERTIFICATE NUMBER: 32877/ASR11336

# CERTIFICATE OF GMP COMPLIANCE OF A MANUFACTURER<sup>1,2</sup>

### Part 1

Issued following an inspection in accordance with :  
Art. 111(5) of Directive 2001/83/EC as amended

The competent authority of Ireland confirms the following:

The manufacturer: **Abbvie Ireland NL B.V.**

Site address: **Manorhamilton Road, Sligo, Ireland**

OMS Organisation Id. / OMS Location Id.: **ORG-100028221 / LOC-100045264**

Is an active substance manufacturer that has been inspected in accordance with Art. 111(1) of Directive 2001/83/EC.

From the knowledge gained during inspection of this manufacturer, the latest of which was conducted on **2022-12-14**, it is considered that it complies with:

- The principles of GMP for active substances<sup>3</sup> referred to in Article 47 of Directive 2001/83/EC.

This certificate reflects the status of the manufacturing site at the time of the inspection noted above and should not be relied upon to reflect the compliance status if more than three years have elapsed since the date of that inspection. However, this period of validity may be reduced or extended using regulatory risk management principles by an entry in the Restrictions or Clarifying remarks field. This certificate is valid only when presented with all pages and both Parts 1 and 2. The authenticity of this certificate may be verified in EudraGMDP. If it does not appear, please contact the issuing authority.

<sup>1</sup>The certificate referred to in paragraph Art. 111(5) of Directive 2001/83/EC, shall also be required for imports coming from third countries into a Member State.

<sup>2</sup>Guidance on the interpretation of this template can be found in the Help menu of EudraGMDP database.

<sup>3</sup>These requirements fulfil the GMP recommendations of WHO.

## Part 2

Manufacture of active substance. Names of substances subject to inspection:

*VENETOCLAX(en)*

*PARITAPREVIR(en)*

*OMBITASVIR(en)*

*DASABUVIR(en)*

*TRANDOLAPRIL(en)*

*TERAZOSIN MONOHYDROCHLORIDE DIHYDRATE(en)*

*PARICALCITOL(en)*

*PIBRENTASVIR(en)*

*UPADACITINIB(en)*

*BIMATOPROST(en)*

*NAVITOCCLAX(en)*

*GLECAPREVIR(en)*

### 3. MANUFACTURING OPERATIONS - ACTIVE SUBSTANCES

Active Substance:VENETOCLAX

#### 3.1 Manufacture of Active Substance by Chemical Synthesis

3.1.2 Manufacture of crude active substance

3.1.3 Salt formation / Purification steps:  
Purification and crystallisation

#### 3.5 General Finishing Steps

3.5.1 Physical processing steps:  
Drying, Sieving

3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)

3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance)

#### 3.6 Quality Control Testing

3.6.1 Physical / Chemical testing

3.6.2 Microbiological testing excluding sterility testing

Active Substance:PARITAPREVIR

#### 3.1 Manufacture of Active Substance by Chemical Synthesis

3.1.2 Manufacture of crude active substance

3.1.3 Salt formation / Purification steps:  
Crystallisation only

#### 3.5 General Finishing Steps

3.5.1 Physical processing steps:  
Drying,Sieving

3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)

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|                               | 3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance)   |
| <b>3.6</b>                    | <b>Quality Control Testing</b>  |
|                               | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing  |
| Active Substance:OMBITASVIR   |   |
| <b>3.1</b>                    | <b>Manufacture of Active Substance by Chemical Synthesis</b>  |
|                               | 3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation only   |
| <b>3.5</b>                    | <b>General Finishing Steps</b>  |
|                               | 3.5.1 Physical processing steps:<br>Drying, Sieving.<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance) |
| <b>3.6</b>                    | <b>Quality Control Testing</b>  |
|                               | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing  |
| Active Substance:DASABUVIR    |   |
| <b>3.1</b>                    | <b>Manufacture of Active Substance by Chemical Synthesis</b>  |
|                               | 3.1.1 Manufacture of active substance intermediates<br>3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Salt formation, Crystallisation   |
| <b>3.5</b>                    | <b>General Finishing Steps</b>  |
|                               | 3.5.1 Physical processing steps:<br>Drying, Sieving<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance)  |
| <b>3.6</b>                    | <b>Quality Control Testing</b>  |
|                               | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing  |
| Active Substance:TRANDOLAPRIL |   |
| <b>3.1</b>                    | <b>Manufacture of Active Substance by Chemical Synthesis</b>  |

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|  | 3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation  |
| <b>3.5</b>   | <b>General Finishing Steps</b>  |
|  | 3.5.1 Physical processing steps:<br>Drying, Sieving<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance) |
| <b>3.6</b>   | <b>Quality Control Testing</b>  |
|  | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing  |
| Active Substance:TERAZOSIN MONOHYDROCHLORIDE DIHYDRATE |   |
| <b>3.1</b>   | <b>Manufacture of Active Substance by Chemical Synthesis</b>  |
|  | 3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Distillation and crystallisation   |
| <b>3.5</b>   | <b>General Finishing Steps</b>  |
|  | 3.5.1 Physical processing steps:<br>Drying, Milling<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance) |
| <b>3.6</b>   | <b>Quality Control Testing</b>  |
|  | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing  |
| Active Substance:PARICALCITOL                          |   |
| <b>3.1</b>   | <b>Manufacture of Active Substance by Chemical Synthesis</b>  |
|  | 3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation  |
| <b>3.5</b>   | <b>General Finishing Steps</b>  |
|  | 3.5.1 Physical processing steps:<br>Drying<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)          |
| <b>3.6</b>   | <b>Quality Control Testing</b>  |
|  | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing  |
| Active Substance:PIBRENTASVIR                          |   |
| <b>3.1</b>   | <b>Manufacture of Active Substance by Chemical Synthesis</b>  |
|  | 3.1.2 Manufacture of crude active substance   |

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|                               | 3.1.3 Salt formation / Purification steps:<br>Crystallisation  |
| <b>3.5</b>                    | <b>General Finishing Steps</b>   |
|                               | 3.5.1 Physical processing steps:<br>Drying and Milling<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance)    |
| <b>3.6</b>                    | <b>Quality Control Testing</b>   |
|                               | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing   |
| Active Substance:UPADACITINIB |  |
| <b>3.1</b>                    | <b>Manufacture of Active Substance by Chemical Synthesis</b>   |
|                               | 3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation   |
| <b>3.5</b>                    | <b>General Finishing Steps</b>   |
|                               | 3.5.1 Physical processing steps:<br>Drying and De-lumping<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance) |
| <b>3.6</b>                    | <b>Quality Control Testing</b>   |
|                               | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing   |
| Active Substance:BIMATOPROST  |  |
| <b>3.1</b>                    | <b>Manufacture of Active Substance by Chemical Synthesis</b>   |
|                               | 3.1.1 Manufacture of active substance intermediates<br>3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation  |
| <b>3.5</b>                    | <b>General Finishing Steps</b>   |
|                               | 3.5.1 Physical processing steps:<br>Drying<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for  |



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|                              | identification or traceability (lot numbering) of the active substance)  |
| <b>3.6</b>                   | <b>Quality Control Testing</b>   |
|                              | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing   |
| Active Substance:NAVITOCCLAX |  |
| <b>3.1</b>                   | <b>Manufacture of Active Substance by Chemical Synthesis</b>   |
|                              | 3.1.1 Manufacture of active substance intermediates<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation<br>3.1.4 Other:<br>Final API step involves a coupling reaction followed by Crystallisation for Pure API   |
| <b>3.5</b>                   | <b>General Finishing Steps</b>   |
|                              | 3.5.1 Physical processing steps:<br>Drying,Co-milling (de-lumping) of final API<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance) |
| <b>3.6</b>                   | <b>Quality Control Testing</b>   |
|                              | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing   |
| Active Substance:GLECAPREVIR |  |
| <b>3.1</b>                   | <b>Manufacture of Active Substance by Chemical Synthesis</b>   |
|                              | 3.1.2 Manufacture of crude active substance<br>3.1.3 Salt formation / Purification steps:<br>Crystallisation   |
| <b>3.5</b>                   | <b>General Finishing Steps</b>   |
|                              | 3.5.1 Physical processing steps:<br>Drying an De-lumping<br>3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)<br>3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance)                        |
| <b>3.6</b>                   | <b>Quality Control Testing</b>   |
|                              | 3.6.1 Physical / Chemical testing<br>3.6.2 Microbiological testing excluding sterility testing   |

Clarifying remarks (for public users)

***The HPRA does not routinely issue hard copies of GMP certificates. Authenticity of GMP certification may be verified on the EudraGMDP database.***

***2023-03-13***

Name and signature of the authorised person of the  
Competent Authority of Ireland

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