



DBSQC/OCBQ ANALYTICAL METHOD REVIEW MEMO

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Applicant Precigen, Inc. (Precigen)

Subject Biologics License Application (BLA): Review of mycoplasma, bioburden, endotoxin, and sterility analytical methods used for zopapogene imadenovec; PRGN-2012 (PAPZIMEOS™)

Recommendation: Approval

Executive Summary

The mycoplasma, bioburden, endotoxin, and sterility analytical methods used for testing and release of PAPZIMEOS™ and the associated analytic method qualifications were reviewed. The assays were adequately described and shown to be suitable for their intended purpose.

Conclusion

The analytical methods and their qualifications reviewed for PAPZIMEOS™ (b) (4) drug product were found to be adequate for their intended use.

Documents Reviewed


Information in sections of the original submission that describe control of (b) (4) Drug Product (DP) (3.2.S.4 and 3.2.P.5, respectively), including descriptions of (b) (4) DP specifications, analytical procedures of (b) (4) DP, and qualifications of these analytical procedures, were reviewed. In addition, the responses to CBER's Information Requests (IRs) received on January 30, 2025 (Amendment #5), March 3, 2025 (Amendment #10), April 2, 2025 (Amendment #19), April 25, 2025 (Amendment #28), May 5, 2025 (Amendment #31), and June 3, 2025 (Amendment #38) were also reviewed as mentioned below.

Background

On December 27, 2024, Precigen submitted this BLA for PAPZIMEOS™, a novel gorilla adenovector (GC46) gene therapy that induces expression of protein antigen of select regions of human papillomavirus (HPV) types 6 and 11.

PAPZIMEOS™ is a suspension for subcutaneous injection filled at (b) (4) mL per vial and is formulated in 10 mM Tris, 75 mM sodium chloride, 1 mM magnesium chloride hexahydrate, 0.0025% polysorbate 80, and 5.5% α, α-trehalose dihydrate at a pH of (b) (4). PAPZIMEOS™ is stored frozen at ≤ -60°C. Each vial contains a recoverable dose of approximately 5.0×10^{11} adenoviral particles in a 1.0 mL suspension.

(b) (4)



2 pages have been determined to be not releasable: (b)(4)

(b) (4)

3. Endotoxin Method (b) (4) DP

Introduction

Endotoxin testing for (b) (4) DP is performed at Precigen in Germantown, MD. Specification of (b) (4) DP must be met for release of PAPZIMEOS™.

Method

(b) (4)

The method is described in more detail below together with the tests performed to determine the suitability of the test method for its intended use.

The original submission did not contain a qualification report for endotoxin method suitability and lacked sufficient information to complete the review. Therefore, IRs were sent requesting the report and additional data to fulfill these deficiencies. The responses received on January 30, 2025 (Amendment #5) and March 3, 2025 (Amendment #10) were found acceptable and explained below.

Endotoxin Qualification for (b) (4) DP

Precigen qualified their (b) (4) method to determine if the method is suitable under the actual conditions of use. The test was performed using (b) (4)

(b) (4)

Conclusion

The method suitability tests were performed and compliant with (b) (4) thus indicating the (b) (4) is appropriate under the actual conditions of use for (b) (4) DP.

4. Sterility Method (DP)

Introduction

Sterility testing for DP is performed at (b) (4) Specification of 'No growth' must be met for release of PAPZIMEOS™.

Method

The (b) (4) sterility test is used in accordance with (b) (4)

. The method is described in more detail below together with the tests that were performed to determine suitability of the test method.

The original submission did not contain a qualification report for sterility method suitability and lacked sufficient information to complete the review. Therefore, IRs were sent requesting the report and additional data to fulfill these deficiencies. The responses received on January 30, 2025 (Amendment #5), March 3, 2025 (Amendment #10), April 2, 2025 (Amendment #19), April 25, 2025 (Amendment #28), April 25, 2025 (Amendment #28), May 5, 2025 (Amendment #31), and June 3, 2025 (Amendment #38) were found acceptable and explained below.

Sterility Qualification for DP

(b) (4)


The sterility test for DP uses (b) (4)



After not more than (b) (4)

samples were negative for growth.

(b) (4)



Conclusion

The method suitability tests were performed and compliant with (b) (4) thus indicating the (b) (4) sterility test method is appropriate under the actual conditions of use for DP.