CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

214200Orig1s000

PRODUCT QUALITY REVIEW(S)

U.S. FOOD & DRUG ADMINISTRATION

RECOMMENDATION

☒ Approval
☐ Approval with Post-Marketing Commitment
☐ Complete Response

NDA 214200
Assessment #01

Drug Product Name	Cosela (Trilaciclib for Injection)
Dosage Form	For Injection
Strength	300 mg
Route of Administration	Intravenous
Rx/OTC Dispensed	Rx
Applicant	G1 Therapeutics, Inc.
US agent, if applicable	N/A

Submission(s) Assessed	Document Date	Discipline(s) Affected
Original CMC submission	06/15/2020	All
Amendment	07/10/2020	Drug Product
Amendment	08/24/2020	Drug Substance, Drug Product
Amendment	09/18/2020	Manufacturing
Amendment	09/24/2020	Drug Substance, Manufacturing
Amendment	10/02/2020	Drug Product
Amendment	10/23/2020	Manufacturing
Amendment	11/05/2020	Drug product
Amendment	12/14/2020	Drug product, Labeling

QUALITY ASSESSMENT TEAM

Discipline	Primary Assessment	Secondary Assessment
Drug Substance	Zhengfu Wang	Suong Tran
Drug Product	Dan Berger	David Claffey
Manufacturing	Laurie Nelson	Kumar Janoria
Microbiology	Erin Wall	Laura Wasil
Biopharmaceutics	NA	NA
Regulatory Business Process Manager	Grafton Adams	
Application Technical Lead	Dan Berger	
Laboratory (OTR)	NA	NA
Environmental	NA	NA

EXECUTIVE SUMMARY

I. RECOMMENDATIONS AND CONCLUSION ON APPROVABILITY

OPQ recommends approval of NDA 214200 for marketing of Cosela (trilaciclib) for injection, 300 mg. The applicant provided adequate information to ensure the identity, strength, purity, and quality of the proposed product. All facilities are in good standing.

II. SUMMARY OF QUALITY ASSESSMENTS

A. Product Overview

G1 Therapeutics seeks a priority review of Cosela (trilaciclib) for injection to mitigate clinically significant chemotherapy-induced myelosuppression (CIM) in patients with small cell lung cancer (SCLC). The proposed maximum dose is 240 mg/m^2 prior to chemotherapy on each day chemotherapeutic agents are administered. Safety and effectiveness of (b) (4) has not been established in pediatric patients under 18 years of age. The Applicant contends that the proposed treatment provides substantial improvement over available therapies for the serious and life-threatening condition of CIM in patients receiving treatment for SCLC.

Trilaciclib for Injection, 300 mg/vial is a sterile, lyophilized, yellow cake containing the equivalent of 300 mg of the trilaciclib (provided as 349 mg of trilaciclib dihydrochloride). The product is supplied in single dose 20 mL clear glass vials and does not contain a preservative. Since trilaciclib will be administered to cancer patients only, organic impurities with alert structures for genotoxicity are controlled as regular impurities (Confirmation regarding patient population was obtained by pharm/tox on November 24, 2020 and clinical on November 30, 2020 via email). Prior to use, the drug product is reconstituted with 19.5 mL of 0.9% Sodium Chloride Injection, USP or 5% Dextrose Injection, USP. The required quantity is transferred into an IV bag containing 0.9% Sodium Chloride Injection, USP or 5% Dextrose Injection, USP to a concentration of 0.5 mg/mL to 3.0 mg/mL. Breakthrough Therapy Designation was granted on August 1, 2019 for trilaciclib, and a rolling NDA submission was approved on November 19, 2019. The 300 mg/vial formulation was developed during Phase 2 studies, with a change made from (b) (4) mL vials to 20 mL vials for registration and commercial drug product batches. A shelf-life of 24 months is supported by 12 months of long-term (25°C/60% RH) and 6 months of accelerated (40°C/75% RH) stability data on three primary stability batches. Reconstituted drug product can be stored for up to 4 hours at room temperature, and storage time of the diluted mixture varies based on the container composition. Physical stability of reconstituted and diluted drug product (potential precipitation in IV bags), infusion set compatibility and microbial content were key quality issues assessed during review. Based on the review of NDA 214200,

Trilaciclib for Injection is determined to be of acceptable quality, with minimal risks to patients identified from a drug product perspective when used as directed.

Proposed Indication(s) including Intended Patient Population	Mitigate clinically significant chemotherapy-induced myelosuppression (CIM) in patients with small cell lung cancer (SCLC).
Duration of Treatment	Each day chemotherapeutic agents are administered.
Maximum Daily Dose	240 mg/m^2
Alternative Methods of Administration	None

B. Quality Assessment Overview

Drug Substance: Adequate

- Trilaciclib Dihydrochloride is a small synthetic achiral molecule. Sufficient information is provided on the characterization of its physicochemistry, structure, and impurity profile. It is a slightly hygroscopic yellow powder, and exhibits pH-dependent solubility in aqueous buffers. Multiple potential polymorphic forms were found in the screening studies; however, the commercial drug substance manufactured by the applicant is the (b) (4) form--(b) (4). As the administered product is a solution, the drug substance polymorphic form is not regarded as a CQA.
- Sufficient information is provided to demonstrate consistent chemical synthesis and manufacture of the drug substance. The proposed starting materials (b) (4) and (b) (4) are adequately supported by documentation as per ICH Q11. No major change was made to the synthesis or process in the transition from phase 3 to commercial.
- Control of organic impurities are qualified by toxicological data. Organic impurities with alert structures for genotoxicity are controlled as regular impurities as the drug substance will be administered to cancer patients only (Confirmation regarding patient population was obtained by pharm/tox on November 24, 2020 and clinical on November 30, 2020 via email). Controls of residual solvents, elemental impurities are in acordance with applicable ICH guidances.
- The drug substance trilaciclib dihydrochloride is packed in (b) (4), and stored at (b) (4), with a retest period of (b) (4) years.

Drug Product: Adequate

Trilaciclib for Injection, 300 mg/vial is a sterile, lyophilized, yellow cake containing the equivalent of 300 mg of trilaciclib (supplied as 349 mg of trilaciclib dihydrochloride). The product is first reconstituted with 19.5 mL of 0.9% Sodium Chloride Injection or 5% Dextrose Injection to a concentration of 15 mg/mL, then further diluted prior to intravenous injection to a concentration of 0.5 mg/mL to 3.0 mg/mL. All excipients are compendial, not of human or animal origin, and present in at acceptable levels based on the FDA Inactive Ingredients database. Compatibility with the container glass vial is confirmed for up to 4 hours after reconstitution. The further diluted solution is stable in IV bags for 8-24 hours, depending on the composition of the IV bags and diluent. When diluted with 0.9% sodium chloride, drug product precipitated from solution within 8-12 hours in polyolefin/polyamide, ethylene vinyl acetate or polyolefin bags, although no precipitation occurred in polyvinyl chloride bags for up to 24 hours. Multiple compatibility tests have confirmed the adequate stability of the diluted drug product for the proposed hold times of 4-12 hours, thus supporting storage times listed in the labeling. Leachables studies have confirmed the compatibility of the reconstituted drug product with the container closure. No additional risks for leachables have been identified for the diluted solutions in IV bags. The specifications are adequate to ensure drug product quality and all drug product batches meet specified acceptance criteria. The key analytical methods are the HPLC method used to assess identification, assay, and impurities. Drug product packaging consists of a (b) (4) clear glass vial, sealed with a (b) (4) rubber stopper and secured with a 20 mm aluminum overseal.

The primary packaging components that contact the drug product consist of materials commonly used for pharmaceutical packaging and meet USP specifications. Registration drug product batches meet all acceptance criteria during long-term and accelerated stability studies, with no significant changes or increases in degradants. Trilaciclib for Injection is not photosensitive and meets specifications after 12 months of storage at 25°C/60%RH or 6 months at 40°C/75%RH. The overall stability data submitted provides adequate support for the proposed shelf-life of 24 months at 25°C.

Labeling: Adequate

The applicant proposed adding (b) (4) to the salt equivalency statement. However, (b) (4) details are not generally included in the salt equivalency statement. Thus, the drug substance (b) (4) is not included in the labeling. All labeling deficiencies have been addressed. The Applicant has made the recommended edits on the container label in response to an Information Request sent by the Agency. The Prescribing Information and labels comply with all regulatory requirements from a CMC perspective.

Manufacturing: Adequate

Trilaciclib for Injection, 300 mg/vial is manufactured (b) (4) [redacted]. No PAIs were conducted, all facilities are deemed adequate. OPMA recommends approval.

Biopharmaceutics: Choose an item.

NA

Microbiology (if applicable): Adequate

Trilaciclib for Injection does not contain a preservative. Registration and stability batches meet regulatory expectations for bacterial endotoxin levels and sterility. Additionally, the manufacturing process and controls, container sterilization and closure integrity meet regulatory expectations.

The applicant proposes to hold the reconstituted and diluted Trilaciclib solutions for 4 hours post-reconstitution and then (b) (4) hours post-dilution at room temperature. Based on post-reconstitution and dilution stability studies for 24 hours in saline and 48 hours in dextrose (time periods longer than the label recommendation), the drug product remains stable from a microbiological perspective.

C. Risk Assessment

From Initial Risk Identification			Assessment		
Attribute/ CQA	**Factors that can impact the CQA**	**Initial Risk Ranking**	**Risk Mitigation Approach**	**Final Risk Evaluation**	**Lifecycle Considerations/ Comments**
Assay	Drug product formulation, stability	Low	Monitored during stability, reconstitution and dilution	Acceptable	-
Physical Stability of diluted product	Container closure, storage time	High	Controlled by applying 4-12 hour hold times	Acceptable	-
Content Uniformity	Process parameters, drug load	Low	Controlled by manufacturing process, (b) (4) drug load	Acceptable	-
Microbial Content	Formulation, container closure	Medium	Lyophilized drug product (b) (4)	Acceptable	-
Dissolution	Drug substance solubility, polymorphism	Low	Highly soluble drug substance	Acceptable	-
Particle Size	Manufacturing process	Medium	Soluble drug substance, (b) (4)	Acceptable	-

D. List of Deficiencies for Complete Response

1. Overall Quality Deficiencies (Deficiencies that affect multiple sub-disciplines)

None

2. Drug Substance Deficiencies

None

3. Drug Product Deficiencies

None

4. Labeling Deficiencies

None

5. Manufacturing Deficiencies

None

6. Biopharmaceutics Deficiencies

None

7. Microbiology Deficiencies

None

8. Other Deficiencies (Specify discipline, such as Environmental)

None

Application Technical Lead Name and Date:

Dan Berger December 18, 2020

QUALITY ASSESSMENT DATA SHEET

IQA NDA Assessment Guide Reference

1. RELATED/SUPPORTING DOCUMENTS

A. DMFs:

DMF #	Type	Holder	Item Referenced	Status	Date Assessment Completed	Comments
(b) (4)	III	(b) (4)	(b) (4)	Active	N/A	Sufficient information in NDA
	III			Active	N/A	
	V			Active	N/A	
	V			Active	N/A	
	III			Active	N/A	

B. OTHER DOCUMENTS: *IND, RLD, RS, Approved NDA*

Document	Application Number	Description
IND	119254	Treatment for reduction of chemotherapy-induced myelosuppression

2. CONSULTS

None.

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David Claffey

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CHAPTER IV: LABELING

1.0 PRESCRIBING INFORMATION

Assessment of Product Quality Related Aspects of the Prescribing Information:

The prescribing information meets all regulatory requirements from a CMC perspective, following edits made to revise the salt statement language in Sections 3 and 11. Additional edits were made to Section 2 in conjunction with DMEPA to clarify administration instructions. Finally, the inactive ingredients were alphabetized and physical properties were added in Section 11.

1.1 HIGHLIGHTS OF PRESCRIBING INFORMATION

Item	Information Provided in the NDA	Assessor's Comments
Product Title in Highlights		
Proprietary name	Brand Name (Cosela)	Adequate (listed as Tradename)
Established name(s)	trilaciclib	Adequate
Route(s) of administration	Intravenous	Adequate
Dosage Forms and Strengths Heading in Highlights		
Summary of the dosage form(s) and strength(s) in metric system.	300 mg	Adequate
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"	NA	NA
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package.	Single-dose	Adequate

1.2 FULL PRESCRIBING INFORMATION

1.2.1 Section 2 (DOSAGE AND ADMINISTRATION)

Item	Information Provided in the NDA	Assessor's Comments
DOSAGE AND ADMINISTRATION section		
Special instructions for product preparation (e.g., reconstitution and resulting concentration, dilution, compatible diluents, storage conditions needed to maintain the stability of the reconstituted or diluted product)	Reconstitute and subsequently dilute with saline or 5% dextrose. Swirl for up to 3 minutes. Storage of 4-12 hours at rt depending on IV bag material.	Adequate, following edits made in conjunction with DMEPA.

1.2.2 Section 3 (DOSAGE FORMS AND STRENGTHS)

Item	Information Provided in the NDA	Assessor's Comments
DOSAGE FORMS AND STRENGTHS section		
Available dosage form(s)	Lyophilized cake	Adequate
Strength(s) in metric system	300 mg	Adequate
If the active ingredient is a salt, apply the USP Salt Policy per FDA Guidance	Equivalent of 300 mg of trilaciclib (provided as 349 mg of trilaciclib dihydrochloride).	Adequate, following edits.
A description of the identifying characteristics of the dosage forms, including shape, color, coating, scoring, and imprinting	Sterile, preservative-free, yellow, lyophilized cake	Adequate
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"	NA	NA
For injectable drug products for parental administration, use appropriate labeling term (e.g., single-dose, multiple-dose, single-patient-use). Other package type terms include pharmacy bulk package and imaging bulk package.	Single-dose	Adequate

1.2.3 Section 11 (DESCRIPTION)

Item	Information Provided in the NDA	Assessor's Comments
DESCRIPTION section		
Proprietary and established name(s)	Brand Name, trilaciclib	Adequate
Dosage form(s) and route(s) of administration	300 mg lyophilized cake for IV infusion after reconstitution and dilution.	Adequate
If the active ingredient is a salt, apply the USP Salt Policy and include the equivalency statement per FDA Guidance.	Equivalent of 300 mg of trilaciclib (provided as 349 mg of trilaciclib dihydrochloride).	Adequate, following edits.
List names of all inactive ingredients. Use USP/NF names. Avoid Brand names.	Citric acid monohydrate (75.6 mg) and mannitol (300 mg); hydrochloric acid and sodium hydroxide to adjust pH.	Adequate, after alphabetized.
For parenteral injectable dosage forms, include name and quantities of all inactive ingredients.	300 mg mannitol, 75.6 mg citric acid monohydrate	Adequate
If alcohol is present, must provide the amount of alcohol in terms of percent volume of absolute alcohol	NA	NA
Statement of being sterile (if applicable)	Sterile	Adequate
Pharmacological/ Therapeutic class	Kinase inhibitor	Adequate
Chemical name, structural formula, molecular weight	2'-{[5-(4-methylpiperazin-1-yl)pyridin-2-yl]amino}-7',8'-dihydro-6'H- spiro [cyclohexane-1,9'-pyrazino[1',2':1,5]pyrrolo[2,3-d]pyrimidin]-6'-one Dihydrochloride, $C_{24}H_{30}N_8O$•2HCl, 519.48.	Adequate
If radioactive, statement of important nuclear characteristics.	NA	NA
Other important chemical or physical properties (such as pKa or pH)	Not present, edited to add "water-soluble".	Adequate, following edits.

Section 11 (DESCRIPTION) Continued

Item	Information Provided in the NDA	Assessor's Comments
For oral prescription drug products, include gluten statement if applicable	NA	NA
Remove statements that may be misleading or promotional (e.g., "synthesized and developed by Drug Company X," "structurally unique molecular entity"	NA	NA

1.2.4 Section 16 (HOW SUPPLIED/STORAGE AND HANDLING)

Item	Information Provided in the NDA	Assessor's Comments
HOW SUPPLIED/STORAGE AND HANDLING section		
Available dosage form(s)	Lyophilized cake	Adequate
Strength(s) in metric system	300 mg	Adequate
Available units (e.g., bottles of 100 tablets)	Single-dose vial.	Adequate
Identification of dosage forms, e.g., shape, color, coating, scoring, imprinting, NDC number	Yellow lyophilized cake, trilaciclib for Injection, NDC 73462-101-01	Adequate
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"	NA	NA
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package.	Single-dose vial.	Adequate

Section 16 (HOW SUPPLIED/STORAGE AND HANDLING) (Continued)

Item	Information Provided in the NDA	Assessor's Comments
Special handling about the supplied product (e.g., protect from light, refrigerate). If there is a statement to "Dispense in original container," provide reason why (e.g. to protect from light or moisture, to maintain stability, etc.)	NA	NA
If the product contains a desiccant, ensure the size and shape differ from the dosage form and desiccant has a warning such as "Do not eat."	NA	NA
Storage conditions. Where applicable, use USP storage range rather than storage at a single temperature.	Store at room temperature 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F)	Adequate
Latex: If product does not contain latex and manufacturing of product and container did not include use of natural rubber latex or synthetic derivatives of natural rubber latex, state: "Not made with natural rubber latex. Avoid statements such as "latex-free."	The vial stopper is not made with natural rubber latex.	Adequate
Include information about child-resistant packaging	NA	NA

1.2.5 Other Sections of Labeling

No other sections of the labeling contain product quality information.

1.2.6 Manufacturing Information After Section 17 (for drug products)

Item	Information Provided in the NDA	Assessor's Comments
Manufacturing Information After Section 17		
Name and location of business (street address, city, state and zip code) of the manufacturer, distributor, and/or packer	Distributed by: G1 Therapeutics, Inc. Durham, NC 27709	Adequate.

2.0 PATIENT LABELING

Assessment of Product Quality Related Aspects of Patient Labeling (e.g., Medication Guide, Patient Information, Instructions for Use): NA

3.0 CARTON AND CONTAINER LABELING

3.1 Container Label

Bottle:

3.2 Carton Labeling

1 Page(s) of Draft Labeling has been Withheld in Full as B4 (CCI/TS) immediately following this page

Item	Information Provided in the NDA	Assessor's Comments about Bottle and Carton Labeling
Proprietary name, established name, and dosage form (font size and prominence	Cosela, trilaciclib	Adequate
Dosage strength	300 mg/vial	Adequate
Route of administration	Intravenous infusion only	Adequate
If the active ingredient is a salt, include the equivalency statement per FDA Guidance	Equivalent of 300 mg of trilaciclib (provided as 349 mg of trilaciclib dihydrochloride).	Adequate, following response to an Information Request.
Net contents (e.g. tablet count)	300 mg/vial	Adequate
"Rx only" displayed on the principal display	Present	Adequate
NDC number	NDC 73462-101-01	Adequate
Lot number and expiration date	Present	Adequate
Storage conditions. If applicable, include a space on the carton labeling for the user to write the new BUD.	Store at room temperature 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F)	Adequate
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use)	Single-dose vial	Adequate
Other package terms include pharmacy bulk package and imaging bulk package which require "Not for direct infusion" statement.	NA	NA
If alcohol is present, must provide the amount of alcohol in terms of percent volume of absolute alcohol	NA	NA
Bar code	Present	Adequate

Item	Information Provided in the NDA	Assessor's Comments about Bottle and Carton Labeling
Name of manufacturer/distributor	Distributed by: G1 Therapeutics, Inc. Durham, NC 27709	Adequate
Medication Guide (if applicable)	NA	NA
No text on Ferrule and Cap overseal	NA	NA
When a drug product differs from the relevant USP standard of strength, quality, or purity, as determined by the application of the tests, procedures, and acceptance criteria set forth in the relevant compendium, its difference shall be plainly stated on its label.	NA	NA
And others, if space is available	NA	NA

Assessment of Carton and Container Labeling: *Adequate*
The labels comply with all regulatory requirements from a CMC perspective, following changes made to the salt statement in response to an Information Request on December 14, 2020 (SD# 29).

ITEMS FOR ADDITIONAL ASSESSMENT

None

Overall Assessment and Recommendation:

We note that [redacted] (b) (4) details are not generally included in the salt equivalency statement. Thus, the [redacted] (b) (4) is not included in the labeling. All labeling deficiencies have been addressed. The Prescribing Information and labels comply with all regulatory requirements from a CMC perspective.

Primary Labeling Assessor Name and Date:

Dan Berger December 14, 2020

Secondary Assessor Name and Date (and Secondary Summary, as needed):

David Claffey December 14, 2020

Dan Berger

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CHAPTER VII: MICROBIOLOGY

IQA NDA Assessment Guide Reference

Product Information	
NDA Number	214200
Assessment Cycle Number	MR01
Drug Product Name/ Strength	Trilaciclib (Cosela) / 300mg/vial
Route of Administration	IV
Applicant Name	G1 Therapeutics Inc.
Therapeutic Classification/ OND Division	(b) (4) of chemotherapy-induced myelosuppression/ Division of Non-Malignant Hematology
Manufacturing Site	Patheon Manufacturing Services LLC 5900 Martin Luther King Jr. Highway Greenville, NC 27834
Method of Sterilization	(b) (4)

Assessment Recommendation: **Adequate**

Assessment Summary:

List Submissions being assessed (table):

Document(s) Assessed	Date Received
0002	**6/15/2020**
0003	**7/10/2020**

Highlight Key Issues from Last Cycle and Their Resolution: N/A

Remarks: The drug product is (b) (4) and lyophilized. The submission to S/N 0010 to update the manufacturing process document in Section P.3 and other Module 1.11 IR response submissions related to quality were updates in response to the Process and Facility IRs and did not change the microbiologically relevant details of the manufacturing process.

Concise Description of Outstanding Issues: N/A

Supporting Documents:

Quality microbiology review D(b) (4)M08R01.docx (3/17/2020, adequate) The applicant provided a LOA dated 9/17/2019 to access DMF (b) (4) for the (b) (4) drug product. D(b) (4)M08R01.docx contains a review of a recent dose audit and bioburden sampling studies that verify sterilization (b) (4)

(b) (4). The DMF (b) (4) quality section has not been updated since that review.

Quality microbiology review D(b) (4)M33R01.doc, (2/3/2017, adequate) The applicant provided a LOA dated 10/28/2019 to access DMF (b) (4) for the (b) (4) stopper (b) (4) method. D(b) (4)M33R01.doc reviews the (b) (4) process using the (b) (4) validation matrix in DMF (b) (4). There have been no new amendments regarding the (b) (4) configuration since 2/23/2016, because that validation matrix is updated every five years.

Quality microbiology review D(b) (4)M08R01.docx (10/15/2020, adequate) covers the manufacturing line germane to this application at Patheon in Greenville, NC. The applicant provided a LOA dated 10/24/2019 to access DMF (b) (4) for the manufacturing process including manufacturing description, sterilization validation data and media fills.

S DRUG SUBSTANCE – The drug substance is not provided sterile, so will not be reviewed here.

P.1 DESCRIPTION OF THE COMPOSITION OF THE DRUG PRODUCT

- **Description of drug product –** Section P.1, pg. 1-2 of Description and Composition of the Drug Product

  Trilaciclib for Injection, 300 mg/vial is a sterile, lyophilized, yellow cake providing 300 mg of trilaciclib. The product is supplied in single-dose 20-mL clear glass vials and does not contain a preservative.

- **Drug product composition –**

Ingredient	Quantity per mL (mg)	Function
Trilaciclib dihydrochloride	300	API
Mannitol USP/Ph. Eur.	300	(b) (4)
Citric acid monohydrate USP/Ph. Eur.	75.6	
Sodium hydroxide NF/Ph. Eur.	qs	pH
Hydrochloric acid NF/Ph. Eur.	qs	pH
(b) (4)		

- **Description of container closure system –** Section P.1, pg. 2 of Description and Composition of the Drug Product; Section P.7 Container Closure System

The drug product is supplied in a 20 mL ([redacted] clear glass vial, sealed with a 20 mm gray [redacted] rubber stopper and secured with a 20 mm aluminum overseal with a plastic flip-off seal.

Configuration	Component	Description	Manufacturer
300mg of lyophilized cake in a 20mL vial with a 20mm stopper	20mL glass vial	20-mL, 20-mm clear glass, USP [redacted] tubing glass vial	[redacted]
	20mm rubber [redacted] stopper	[redacted] gray [redacted] rubber, with [redacted] plug [redacted] flange and [redacted]	
	Seal	Aluminum overseal with a dark gray plastic flip-off button	

Assessment: ***Adequate***
The description of the drug product meets regulatory expectations.

P.2 PHARMACEUTICAL DEVELOPMENT

P.2.5 MICROBIOLOGICAL ATTRIBUTES

[redacted]

[redacted]

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Laura Wasil

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Dan Berger

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David Claffey

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