

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**202895Orig1s000**

**MEDICAL REVIEW(S)**

Clarification to Amendment 2 to MOR of NDA 202-895  
Dec. 13, 2011

As per FAX to Applicant from the Agency regarding storage temperature reports in the EMA inspections:

- Please clarify whether any (b) (4) darunavir and ritonavir long term stability data has been generated at either (b) (4)
- In regards to darunavir/ritonavir samples from the TMC114-C228 trial that were stored at (b) (4), please provide information on the following: a) the number of trial sites and the number of subjects at each site that had darunavir/ritonavir samples stored at (b) (4), b) the total number of darunavir/ritonavir samples at each trial site that had samples stored at (b) (4), and c) the maximum length of time

In Amendment 2 the following statement was made:

“The Applicant’s response to the Division’s RFI for the first question is the subject of this amendment. The Chemistry Reviewer, Dr. M Paciga, will provide an in depth review of stability and temperature issues, however his assessment indicated that based on stability data and reported temperature deviations significant changes in product quality or performance are not expected.”

**Clarification as per Chemistry Reviewer:**

There were 2 stability/storage temperature issues identified during the clinical site inspections:

- 1) storage and stability of drug product (darunavir oral suspension, and possibly ritonavir) at temperatures in the range of 10-30degC; and
- 2) storage of blood/plasma PK samples at (b) (4) degC rather than -20degC.

It is unlikely that storage of the drug product over the range of temperatures noted (all above refrigeration or freezing) before administration to patients would adversely affect product quality or performance.

Storage of drug product at (b) (4) degC would likely impact product performance. On the other hand, storage of plasma at (b) (4) degC would not likely adversely impact chemical stability of the analytes (darunavir, metabolites).

Note: MOR #2 refers erroneously to storage at (b) (4) deg and product quality/performance. As noted above plasma storage at (b) (4) would not affect plasma quality not drug quality. Drug product stored at specified range of temperatures was also not affected.

Regina Alivisatos, MD

-----  
**This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.**  
-----

/s/  
-----

M R ALIVISATOS  
12/13/2011

**Medical Officer Review  
Amendment to Review of NDA 202-895**

<b>Date</b>	November 20, 2011
<b>From</b>	Regina Alivisatos, M.D.
<b>Subject</b>	Medical Officer Review Amendment
<b>NDA # and Supplement #</b>	NDA 202895/000 and SNDA 21976/S-20
<b>Applicant</b>	Tibotec Inc.
<b>Date of Original Submission</b>	March 29, 2011
<b>Original PDUFA Goal Date</b>	September 30, 2011
<b>Date of Major Amendment</b>	September 28, 2011
<b>Revised PDUFA Date</b>	December 30, 2011
<b>Proprietary Name / Established (USAN) names</b>	Prezista (darunavir)
<b>Dosage forms / Strength</b>	New proposed dosage form: Oral Suspension Approved dosage forms: 300 mg tablets, 150 mg tablets
<b>Proposed Indication(s)</b>	Treatment of HIV infection
<b>Recommended:</b>	Approval

This is the second amendment to the NDA package. The first, authored by the Cross Discipline Team Leader, Dr. Yodit Belew, dated September 26, 2011, had as its subject the revised dosing recommendation made by the Division for subjects weighing 10 to less than 15 kg. This recommendation was subsequently accepted by the Applicant. Specifically, the Division recommended that for subjects 3 years of age and older and weighing 10 to less than 15 kg, the dose should be calculated based on darunavir 20 mg/kg co-administered with ritonavir 3mg/kg.

Several reasons led to this change in dosing recommendation to 20/3 mg/kg instead of the Applicant's proposed (b) (4) in subjects weighing 10- <15 kg. The primary reason was the Division's assessment of a revision to the population PK analysis submitted by the Applicant to correct for an error, primarily in subjects weighing 10 - <15 kg. In this revised analysis, these subjects would have mean AUC exposure that is 53% higher than the targeted mean adults exposure value. As the lower dose did not present similar pharmacokinetic concerns and had similar efficacy and safety it was determined that this dose was the appropriate one to be included in labeling.

In addition because of concerns that the initial dosing device supplied by the Applicant could lead to dosing errors, the device was changed to an (b) (4) syringe device. Details of this device were provided in the major amendment under review including instructions for use. Both the device and the instructions are acceptable to the Division as well as to DRISK and DMEPA.

The current amendment to the MOR has been included because of the, unsolicited by the Division, submission on September 27, 2011 (SNDA 202-895/SN 41) by the Applicant of clinical sites inspection reports from the EMA for the ARIEL study (TMC114-C228). The ARIEL study was the primary pharmacokinetic and clinical study submitted in both

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.