Dear customer,

Our records indicate that your laboratory is using our BK Virus R-gene® Real-time Detection and Quantification Kit (ref 69-013B). We have observed significant difference between Fit Point and 2nd derivative analysis methods on LightCycler amplification platforms for low positive whole blood samples. Please find in the table below the BK Virus R-gene® lots available on the field:

<table>
<thead>
<tr>
<th>Ref</th>
<th>Product Name</th>
<th>IFU version</th>
<th>Lots</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>69-013B</td>
<td>BK virus R-gene</td>
<td>21258D</td>
<td>1004754140</td>
<td>04/02/2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1004764070</td>
<td>04/02/2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1004927000</td>
<td>04/02/2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21258E (new version)</td>
<td>1004965280</td>
<td>22/11/2018</td>
</tr>
</tbody>
</table>

You are concerned by this FSCA if you use BK Virus R-gene® (ref 69-013B) on whole blood samples analyzed with the 2nd derivative method on LightCycler amplification platforms.

**Description of the issue:**
Following a field intervention, bioMérieux has observed differences between Fit Point and 2nd derivative analysis methods for low positive whole blood samples.
Investigation showed that the significant differences (>0.5 log10 cp/mL) have been obtained for BK virus low viral loads (inferior to around 25 000 cp/mL - corresponding to around 4.40 log10 cp/mL - determined by Fit Point) on whole blood samples with the BK Virus R-gene® assay. These differences between the two methods are due to the shape of the curves for low positive whole blood samples (low amplitude curves - Figure below).
The issue only appears when you:
- Use one of the LightCycler 1.0, 2.0 or 480 amplification platforms.
- Analyse the BK virus on low viral load whole blood sample (urine and plasma samples are not impacted).
- Analyse the results with the 2nd derivative method. With the Fit Point method, there is no problem of analysis.
This issue have no impact on urine and plasma samples, as the amplification curves are well identified.

The LoD on whole blood matrix claimed in the FSCA 3070 is not impacted significantly whatever the analysis method used (Fit Point or 2nd derivative).

To correct the issue, the Instruction For Use (version 21258D) has been modified from the lot 1004965280 (IFU version E) only for LightCycler 480: only Fit Point is validated for whole blood samples. This change must also be applied for LightCycler 1.0 and 2.0. Moreover, a project is ongoing to improve the BK Virus R-gene® kit. The shape of the curves for low positive whole blood samples will be improved which lead to no difference of quantification between 2nd derivative and Fit Point methods. The improved BK Virus R-gene® kit is expected to be available on the field in July 2017 (IFU associated: version F).

**Impact to customer:**
These problems of interpretation could lead to:
- an over-estimated result,
- an invalid result leading to a delayed result until a new run or a new test is performed.

However, this risk can be managed based on the shape of the curves and by performing the test on plasma or urine. We would like to emphasize that BK Virus R-gene® tests on urine and plasma samples are not impacted: the validated analysis methods can be used.

**Required actions:**
We request you to take the following actions at this time:

- Please distribute this information to all appropriate personnel in your laboratory, retain a copy in your files, and forward this information to all parties that may use this product, including others to whom you may have transferred our product.
- Stop to use the 2nd derivative method for whole blood samples on LightCycler 1.0, 2.0 and 480 until the improved BK Virus R-gene® kit was released.
- Contact your local customer service if you observe the issue.
- Complete and return the Acknowledgement Form in Attachment A by Fax to confirm receipt of this notice.
bioMérieux is committed to providing our customers with the highest quality product possible. We sincerely apologize for any inconvenience that this may have caused you. If you require additional assistance or have any questions, please contact your local bioMérieux Customer Service representative.

Yours sincerely,
Customer Service
Attachment A: Acknowledgement Form.

URGENT PRODUCT SAFETY CORRECTION NOTICE

FSCA 3469 – BK Virus R-gene® Significant difference between Fit Point and 2nd derivative analysis methods on LightCycler amplification platforms.

TO BE RETURNED TO YOUR bioMérieux CUSTOMER SERVICE AT THE FOLLOWING

FAX NUMBER : XXXXXXXX
Name of the laboratory:

City:

Customer number:

☐ I acknowledge receipt of the bioMérieux letter regarding the “BK Virus R-gene® Significant difference between Fit Point and 2nd derivative analysis methods on LightCycler amplification platforms”

☐ I will implement the required actions as indicated in the Urgent Product Safety Correction Notice.

☐ Have you received reports of illness or injury related to the BK Virus R-gene® Significant difference between Fit Point and 2nd derivative analysis methods on LightCycler amplification platforms?

DATE .................................................. SIGNATURE : ..............................................................