



Notification of Change

Shenandoah Biotechnology
101 Camars Drive
Warwick, PA 18974

Date: January 29, 2021

To whom it may concern,

Shenandoah Biotechnology, Inc. has eliminated β lactam antibiotics from the recombinant protein manufacturing process in its facility. To achieve this goal, standard molecular biological techniques have been utilized to transfer the DNA coding sequences from the current bacterial expression vector into two new bacterial expression vectors. All other processes and equipment used in the manufacture of the recombinant proteins have not changed.

Shenandoah has confirmed the following:

- 1) DNA sequence by standard DNA sequence methodology and *in silico* translation
- 2) Equivalent recombinant protein expression levels after fermentation by SDS-PAGE analysis and comparison to internal standards.
- 3) Purified recombinant protein properties based on comparison to an internal standard by SDS-PAGE, cell-based activity testing and amino acid sequencing (HPLC-MS/MS, N-terminal or C-terminal amino acid sequencing).

Please be aware you will also receive a notification regarding change of address in a separate attachment.

Please feel free to contact me if there are any further questions regarding this change.

Jazmine George, CQT

A handwritten signature in cursive script that reads "Jazmine George".

Senior Quality Scientist

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