

RESPONSE TO FDA COMMENTS ON CMC RECEIVED ON 05 OCTOBER 2021

The Sponsor acknowledges FDA comments on CMC topics (in **Bold**)

CMC: Analytical method procedure and validation

Our review of your August 24, 2021 submission (STN 125752/2) is ongoing.

We have the following request for additional information regarding the bacterial endotoxin, bioburden and sterility methods for testing CX-024414, mRNA-1273 (b) (4)

(b) (4) , and drug product:

ITEM 1:

CX-024414

Please provide complete verification reports for CX-024414 Endotoxin tests performed both at Moderna TX and Lonza Portsmouth facilities to include product lot numbers tested, sample testing dilutions used in the test for interfering factors and their positive product control percent recoveries and selected optimal product testing dilution.

Sponsor Response

The complete verification reports for CX-024414 Endotoxin tests performed at ModernaTX, Inc and at Lonza Portsmouth are provided as attachments as indicated in the following table. The qualification reports contain the requested details: product lot numbers, sample testing dilutions, positive product control percent recoveries and selected optimal product testing dilution.

Testing Location	Document Name	Document Number
ModernaTX, Inc.	(b) (4)	
Lonza Portsmouth		

ITEM 2:

Please provide complete qualification reports for CX-024414 Bioburden tests performed both at Moderna TX and Lonza Portsmouth facilities to include the test sample volume,

(b) (4)

(b) (4) , product lot numbers tested, as well as (b) (4)

(b) (4)

Sponsor Response

The complete verification reports for CX-024414 Bioburden tests performed at ModernaTX, Inc and at Lonza Portsmouth are provided as attachments as indicated in the following table. The qualification reports and/or attachments contain the requested details: test sample volume, (b) (4)

(b) (4) , product lot numbers tested and (b) (4)

(b) (4)

Testing Location	Document Name	Document Number
ModernaTX, Inc.	(b) (4)	
Lonza Portsmouth		

ITEM 3:

mRNA-1273

Please provide a complete verification report for mRNA-1273 Endotoxin tests performed at Associates of Cape Cod, Inc. (ACC) to include product lot numbers tested, sample testing dilutions used in the test for interfering factors and their positive product control percent recoveries and selected optimal product testing dilution.

Sponsor Response

The method for Endotoxin testing performed at Associates of Cape Cod (ACC), SOP M_CTS_CS_0929, is proprietary. The complete verification report for mRNA-1273 LNP endotoxin testing performed at ACC with the requested details is being submitted directly to the Agency by ACC. Please find contact information below.

(b) (6)

508-540-3444
125 Bernard E. Saint Jean Drive
East Falmouth, MA 02536

ITEM 4:

Please provide a complete qualification report for mRNA-1273 Bioburden test performed at Lonza Portsmouth to include the test sample volume, (b) (4), (b) (4), product lot numbers tested, as well as (b) (4).

Sponsor Response

The complete verification reports for mRNA-1273 LNP Bioburden tests performed at Lonza Portsmouth are provided as attachments as indicated in the following table. The qualification reports and or attachments contain the requested details: test sample volume, (b) (4), (b) (4) product lot numbers tested, as well as (b) (4). Additionally, the ModernaTX, Inc. bioburden test method qualification with requested information has also been provided.

Testing Location	Document Name	Document Number
Lonza Portsmouth	(b) (4)	
ModernaTX, Inc.		

ITEM 5:

(b) (4), (b) (6)



ITEM 6:

(b) (4)



ITEM 7:

(b) (4)



(b) (4)

ITEM 7:

Drug Product

1. Bacterial Endotoxin Test (BET) Please provide the current Standard Operating Procedure (SOP) and a complete verification report for SPIKEVAX drug product Endotoxin testing performed at ACC to include product lot numbers tested, sample testing dilutions used in the test for interfering factors and their positive product control percent recoveries and selected optimal product testing dilution.

Sponsor Response

The method for Endotoxin testing performed at Associates of Cape Cod (ACC), SOP M_CTS_CS_0929, is proprietary. The SOP and complete verification report for SPIKEVAX drug product endotoxin testing performed at ACC with the requested details is being submitted directly to the Agency by ACC. Please find contact information below.

(b) (6)

125 Bernard E. Saint Jean Drive
East Falmouth, MA 02536

ITEM 8:

Sterility

Please provide the current SOP and complete qualification reports for SPIKEVAX drug product Sterility tests performed both at the Catalent Indiana and Baxter Pharmaceutical Solutions facilities including test sample volume, (b) (4),

(b) (4), as well as product lot numbers tested.

Sponsor Response

The current SOPs, complete qualification reports and additional test details for SPIKEVAX drug product Sterility tests performed at the Catalent Indiana and Baxter Pharmaceutical Solutions are provided as attachments as indicated in the following table.

CMO	Testing Details	Document Name	Document Number
Baxter Pharmaceutical Solutions	(b) (4)		
Catalent Indiana			