



CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Lipid Nanoparticle Moderna Part #: 50089
Manufacturer Name: Moderna Container/Closure: (b) (4)
Manufacturer Lot: 5008921001
Moderna Lot Number: 5008921001 Specification: SPC-1213
Date of Manufacture: 15Aug2021 Expiry Date: 12Nov2021

Product Attribute	Method	Parameter	Specification	Result
Appearance	SOP-0278	Appearance - Color	(b) (4)	
		Appearance - Particulates		
Identity	SOP-1032	Identity		
Concentration	SOP-0999	RNA Content		
Purity	SOP-0996	Purity		
		% IG1		
		% IG2		
		% IG3		
% RNA Encapsulation	SOP-1000	% Encapsulation		
Dynamic Light Scattering	SOP-0998	Particle Size		
		Polydispersity		
Lipid Identification	SOP-1001	SM102		
		Cholesterol		

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Generated Date: 01-Oct-2021
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Product Attribute	Method	Parameter	Specification	Result
Lipid Content		DSPC	(b) (4)	
		PEG-DMG		
		SM102		
		Cholesterol		
Lipid Impurities		DSPC		
		PEG-DMG		
		% Area 1		
		% Area 2		
		% Area 3		
		% Area 4		
		RRT 1		
pH	SOP-0288	RRT 2		
		RRT 3		
		RRT 4		
		% Total Impurities		

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Product Attribute	Method	Parameter	Specification	Result
Osmolality	SOP-0279	Osmolality	(b) (4)	
Bacterial Endotoxins	USP <85>	Bacterial Endotoxins		
Bioburden	SOP-0480	TAMC		
		TYMC		

This material meets specification: Yes

Revision History:

1.0 Original

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Document Number: VV-QUAL-007305 eDMS Version: 1.0 FDA-CBER-2022-1614-3815492
Confidential and Proprietary

Document Approvals
Approved Date: 01 Oct 2021

Approval Verdict: Approved	(b) (6) (b) (6) modernatx.com) Quality Control Approval 01-Oct-2021 18:45:32 GMT+0000
QA Approval Verdict: Approved	(b) (6) (b) (6) @modernatx.com) Quality Assurance Approval 01-Oct-2021 19:16:28 GMT+0000