

# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320001 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520001                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 28May2020                            | Expiry Date:       | 28Aug2020                                     |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            | Report Results  |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320001 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520001                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 28May2020                            | Expiry Date:       | 28Aug2020                                     |

| Product Attribute | Method | Parameter   | Specification   | Result  |
|-------------------|--------|-------------|---|---|
| Lipid Content     |        | DSPC        | Matches Retention Time<br>of Reference  | Conforms  |
|                   |        | PEG-DMG     | Matches Retention Time<br>of Reference  | Conforms  |
|                   |        | SM102       |  |   |
|                   |        | Cholesterol |   |   |
| Lipid Impurities  |        | DSPC        |   |   |
|                   |        | PEG-DMG     |   |   |
|                   |        | % Area 1    | Report Results  |  |
|                   |        | % Area 2    | Report Results  |   |
|                   |        | % Area 3    | Report Results  |   |
|                   |        | % Area 4    | Report Results  |   |
|                   |        | % Area 5    | Report Results  |   |
|                   |        | % Area 6    | Report Results  |   |
|                   |        | % Area 7    | Report Results  |   |
|                   |        | % Area 8    | Report Results  |   |
|                   |        | RRT 1       | Report Results  |   |
|                   |        | RRT 2       | Report Results  |   |
|                   |        | RRT 3       | Report Results  |   |
|                   |        | RRT 4       | Report Results  |   |

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320001 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520001                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 28May2020                            | Expiry Date:       | 28Aug2020                                     |

| Product Attribute    | Method   | Parameter                        | Specification                        | Result    |
|----------------------|----------|----------------------------------|--------------------------------------|-----------|
|                      |          | RRT 5                            | Report Results                       |           |
|                      |          | RRT 6                            | Report Results                       |           |
|                      |          | RRT 7                            | Report Results                       |           |
|                      |          | RRT 8                            | Report Results                       |           |
|                      |          | % Total Impurities               | Report % area of total<br>impurities |           |
| Particulate Matter   | SOP-0509 | 10 µM particles per<br>container |                                      |           |
|                      |          | 25 µM particles per<br>container |                                      |           |
| Container Content    | SOP-0950 |                                  |                                      |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins             |                                      |           |
| Sterility            | SOP-0378 | Sterility                        | No Growth                            | No Growth |

This material meets specification: Yes

## Revision History:

- 1.0 - Original
- 2.0 - Added Labeled Drug Product part number (7006320001) to CofA header

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| QA Approval<br>Verdict: Approved |  |  |

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|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320002 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520002                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 02Jun2020                            | Expiry Date:       | 02Dec2020                                     |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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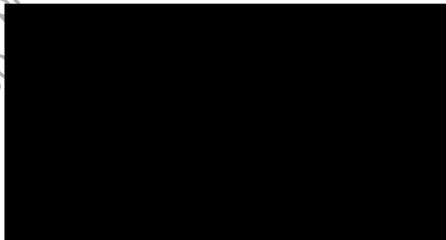

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320002 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520002                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 02Jun2020                            | Expiry Date:       | 02Dec2020                                     |

| Product Attribute | Method | Parameter   | Specification   | Result  |
|-------------------|--------|-------------|---|---|
| Lipid Content     |        | DSPC        | Matches Retention Time<br>of Reference  | Conforms  |
|                   |        | PEG-DMG     | Matches Retention Time<br>of Reference  | Conforms  |
|                   |        | SM102       |  |   |
|                   |        | Cholesterol |   |   |
| Lipid Impurities  |        | DSPC        |   |   |
|                   |        | PEG-DMG     |   |   |
|                   |        | % Area 1    | Report Results  |  |
|                   |        | % Area 2    | Report Results  |   |
|                   |        | % Area 3    | Report Results  |   |
|                   |        | % Area 4    | Report Results  |   |
|                   |        | % Area 5    | Report Results  |   |
|                   |        | % Area 6    | Report Results  |   |
|                   |        | RRT 1       | Report Results  |   |
|                   |        | RRT 2       | Report Results  |   |
|                   |        | RRT 3       | Report Results  |   |
|                   |        | RRT 4       | Report Results  |   |
|                   |        | RRT 5       | Report Results  |   |
|                   |        | RRT 6       | Report Results  |   |

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CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Moderna Part #: 60075  
Manufacturer Name: Moderna Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Plascap  
Manufacturer Lot: 7006320002 (Labeled Drug Product)  
Moderna Lot Number: 6007520002 Specification: SPC-1063  
Date of Manufacture: 02Jun2020 Expiry Date: 02Dec2020

| Product Attribute    | Method   | Parameter                     | Specification                     | Result    |
|----------------------|----------|-------------------------------|-----------------------------------|-----------|
|                      |          | % Total Impurities            | Report % area of total impurities |           |
| Particulate Matter   | SOP-0509 | 10 µM particles per container |                                   |           |
|                      |          | 25 µM particles per container |                                   |           |
| Container Content    | SOP-0950 | Container Content             |                                   |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins          |                                   |           |
| Sterility            | SOP-0378 | Sterility                     | No Growth                         | No Growth |

This material meets specification: Yes

Revision History:

1.0 - Original

2.0 - Expiry date updated from 02Sep2020 to 02Dec2020

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320003 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520003                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 04Jun2020                            | Expiry Date:       | 04Dec2020                                     |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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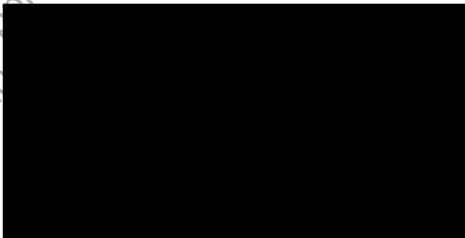

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320003 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520003                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 04Jun2020                            | Expiry Date:       | 04Dec2020                                     |

| Product Attribute | Method | Parameter   | Specification   | Result  |
|-------------------|--------|-------------|---|---|
| Lipid Content     |        | DSPC        | Matches Retention Time of Reference   | Conforms  |
|                   |        | PEG-DMG     | Matches Retention Time of Reference   | Conforms  |
|                   |        | SM102       |  |   |
|                   |        | Cholesterol |   |   |
| Lipid Impurities  |        | DSPC        |   |   |
|                   |        | PEG-DMG     |   |   |
|                   |        | % Area 1    | Report Results  |  |
|                   |        | % Area 2    | Report Results  |   |
|                   |        | % Area 3    | Report Results  |   |
|                   |        | % Area 4    | Report Results  |   |
|                   |        | % Area 5    | Report Results  |   |
|                   |        | % Area 6    | Report Results  |   |
|                   |        | RRT 1       | Report Results  |   |
|                   |        | RRT 2       | Report Results  |   |
|                   |        | RRT 3       | Report Results  |   |
|                   |        | RRT 4       | Report Results  |   |
|                   |        | RRT 5       | Report Results  |   |
|                   |        | RRT 6       | Report Results  |   |

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# CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Moderna Part #: 60075  
 Manufacturer Name: Moderna Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Plascap  
 Manufacturer Lot: 7006320003 (Labeled Drug Product)  
 Moderna Lot Number: 6007520003 Specification: SPC-1063  
 Date of Manufacture: 04Jun2020 Expiry Date: 04Dec2020

| Product Attribute    | Method   | Parameter                     | Specification                     | Result    |
|----------------------|----------|-------------------------------|-----------------------------------|-----------|
|                      |          | % Total Impurities            | Report % area of total impurities |           |
| Particulate Matter   | SOP-0509 | 10 µM particles per container |                                   |           |
|                      |          | 25 µM particles per container |                                   |           |
| Container Content    | SOP-0950 | Container Content             |                                   |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins          |                                   |           |
| Sterility            | SOP-0378 | Sterility                     | No Growth                         | No Growth |

This material meets specification: Yes

## Revision History:

1.0 - Original  
 2.0 - Expiry updated from 04Sep2020 to 04Dec2020

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# CERTIFICATE OF ANALYSIS

|                      |                                   |                    |  |
|----------------------|-----------------------------------|--------------------|--|
| Product Description: | mRNA-1273                         | Moderna Part #:    | 60075                                      |
| Manufacturer Name:   | Moderna                           | Container/Closure: | 10R Glass Vial, 20mm Stopper, 20mm Plascap |
| Manufacturer Lot:    | 7006320004 (Labeled Drug Product) |                    |  |
| Moderna Lot Number:  | 6007520004                        | Specification:     | SPC-1063                                   |
| Date of Manufacture: | 25Jun2020                         | Expiry Date:       | 25Dec2020                                  |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320004 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520004                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 25Jun2020                            | Expiry Date:       | 25Dec2020                                     |

| Product Attribute  | Method   | Parameter                     | Specification                       | Result   |
|--------------------|----------|-------------------------------|-------------------------------------|----------|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference | Conforms |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference | Conforms |
|                    |          | SM102                         |                                     |          |
|                    |          | Cholesterol                   |                                     |          |
|                    |          | DSPC                          |                                     |          |
| PEG-DMG            |          |                               |                                     |          |
| Lipid Impurities   |          | % Area 1                      | Report Results                      |          |
|                    |          | % Area 2                      | Report Results                      |          |
|                    |          | % Area 3                      | Report Results                      |          |
|                    |          | % Area 4                      | Report Results                      |          |
|                    |          | RRT 1                         | Report Results                      |          |
|                    |          | RRT 2                         | Report Results                      |          |
|                    |          | RRT 3                         | Report Results                      |          |
|                    |          | RRT 4                         | Report Results                      |          |
|                    |          | % Total Impurities            | Report % area of total impurities   |          |
| Particulate Matter | SOP-0509 | 10 µM particles per container |                                     |          |
|                    |          | 25 µM particles per container |                                     |          |

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## CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320004 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520004                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 25Jun2020                            | Expiry Date:       | 25Dec2020                                     |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    | [REDACTED]    |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

### Revision History:

- 1.0 - Original
- 2.0 - Batch Date corrected from 26Jun2020 to 25Jun2020. Expiry date corrected to 26Sep2020 to 25Sep2020
- 3.0 - Expiry date updated from 25Sep2020 to 25Dec2020

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| QA Approval<br>Verdict: Approved |  |  |

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|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320005 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520005                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 30Jun2020                            | Expiry Date:       | 30Dec2020                                     |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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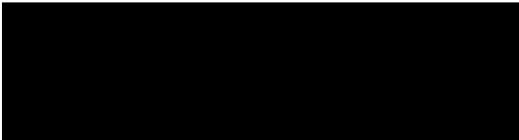
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CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320005 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520005                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 30Jun2020                            | Expiry Date:       | 30Dec2020                                     |

| Product Attribute  | Method   | Parameter                     | Specification  | Result  |
|--------------------|----------|-------------------------------|--|---|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference  | Conforms  |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference  | Conforms  |
|                    |          | SM102                         |   |   |
|                    |          | Cholesterol                   |  |   |
| Lipid Impurities   |          | DSPC                          |  |   |
|                    |          | PEG-DMG                       |  |   |
|                    |          | % Area 1                      | Report Results   |  |
|                    |          | % Area 2                      | Report Results   |   |
|                    |          | % Area 3                      | Report Results   |   |
|                    |          | % Area 4                      | Report Results   |   |
|                    |          | RRT 1                         | Report Results   |   |
|                    |          | RRT 2                         | Report Results   |   |
|                    |          | RRT 3                         | Report Results   |   |
|                    |          | RRT 4                         | Report Results   |   |
|                    |          | % Total Impurities            | Report % area of total impurities  |   |
| Particulate Matter | SOP-0509 | 10 µM particles per container |  |   |
|                    |          | 25 µM particles per container |  |   |

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Page 2 of 3

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## CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320005 (Labeled<br>Drug Product) | Specification:     | SPC-1063                                      |
| Moderna Lot Number:  | 6007520005                           | Expiry Date:       | 30Dec2020                                     |
| Date of Manufacture: | 30Jun2020                            |                    |   |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    | [REDACTED]    |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

### Revision History:

1.0 - Original

2.0 - Corrected Batch Date from 01Jul2020 to 30Jun2020 and expiry date from 01Jan2021 to 30Dec2020.

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# CERTIFICATE OF ANALYSIS

|                      |                                   |                    |  |
|----------------------|-----------------------------------|--------------------|--|
| Product Description: | mRNA-1273                         | Moderna Part #:    | 60075                                      |
| Manufacturer Name:   | Moderna                           | Container/Closure: | 10R Glass Vial, 20mm Stopper, 20mm Plascap |
| Manufacturer Lot:    | 7006320006 (Labeled Drug Product) |                    |  |
| Moderna Lot Number:  | 6007520006                        | Specification:     | SPC-1063                                   |
| Date of Manufacture: | 08Jul2020                         | Expiry Date:       | 08Jan2021                                  |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Moderna Part #: 60075  
Manufacturer Name: Moderna Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Plascap  
Manufacturer Lot: 7006320006 (Labeled Drug Product)  
Moderna Lot Number: 6007520006 Specification: SPC-1063  
Date of Manufacture: 08Jul2020 Expiry Date: 08Jan2021

| Product Attribute  | Method   | Parameter                     | Specification                       | Result   |
|--------------------|----------|-------------------------------|-------------------------------------|----------|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference | Conforms |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference | Conforms |
|                    |          | SM102                         |                                     |          |
|                    |          | Cholesterol                   |                                     |          |
| Lipid Impurities   |          | DSPC                          |                                     |          |
|                    |          | PEG-DMG                       |                                     |          |
|                    |          | % Area 1                      | Report Results                      |          |
|                    |          | % Area 2                      | Report Results                      |          |
|                    |          | % Area 3                      | Report Results                      |          |
|                    |          | % Area 4                      | Report Results                      |          |
|                    |          | RRT 1                         | Report Results                      |          |
|                    |          | RRT 2                         | Report Results                      |          |
|                    |          | RRT 3                         | Report Results                      |          |
|                    |          | RRT 4                         | Report Results                      |          |
|                    |          | % Total Impurities            | Report % area of total impurities   |          |
| Particulate Matter | SOP-0509 | 10 µM particles per container |                                     |          |
|                    |          | 25 µM particles per container |                                     |          |

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320006 (Labeled<br>Drug Product) | Specification:     | SPC-1063                                      |
| Moderna Lot Number:  | 6007520006                           | Expiry Date:       | 08Jan2021                                     |
| Date of Manufacture: | 08Jul2020                            |                    |   |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    |               |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

## Revision History:

1.0 - Original

2.0 - Corrected SOP-0509 Lipid Analysis RRT labeling. No changes to reported results, RRT incorrectly started at RRT2 instead of RRT1 for impurity tracking in version 1.0.

Corrected batch date from 07Jul2021 to 08Jul2020 and expiry date from 07Jan2021 to 08Jan2021

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| QA Approval<br>Verdict: Approved |  |

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# CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320007 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520007                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 09Jul2020                            | Expiry Date:       | 09Jan2021                                     |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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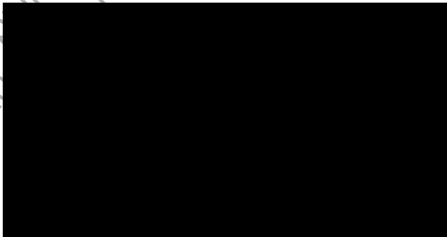


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CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320007 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520007                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 09Jul2020                            | Expiry Date:       | 09Jan2021                                     |

| Product Attribute  | Method   | Parameter                     | Specification  | Result  |
|--------------------|----------|-------------------------------|--|---|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference  | Conforms  |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference  | Conforms  |
|                    |          | SM102                         |   |   |
|                    |          | Cholesterol                   |  |   |
| Lipid Impurities   |          | DSPC                          |  |   |
|                    |          | PEG-DMG                       |  |   |
|                    |          | % Area 1                      | Report Results   |  |
|                    |          | % Area 2                      | Report Results   |   |
|                    |          | % Area 3                      | Report Results   |   |
|                    |          | % Area 4                      | Report Results   |   |
|                    |          | RRT 1                         | Report Results   |   |
|                    |          | RRT 2                         | Report Results   |   |
|                    |          | RRT 3                         | Report Results   |   |
|                    |          | RRT 4                         | Report Results   |   |
|                    |          | % Total Impurities            | Report % area of total impurities  |   |
| Particulate Matter | SOP-0509 | 10 µM particles per container |  |   |
|                    |          | 25 µM particles per container |  |   |

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CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Moderna Part #: 60075  
Manufacturer Name: Moderna Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Plascap  
Manufacturer Lot: 7006320007 (Labeled Drug Product)  
Moderna Lot Number: 6007520007 Specification: SPC-1063  
Date of Manufacture: 09Jul2020 Expiry Date: 09Jan2021

| Product Attribute    | Method   | Parameter            | Specification  | Result    |
|----------------------|----------|----------------------|--|-----------|
| Container Content    | SOP-0950 | Container Content    |  |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |  |           |
| Sterility            | SOP-0378 | Sterility            | No Growth  | No Growth |

This material meets specification: Yes

Revision History:

1.0 - Original

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| QA Approval<br>Verdict: Approved |  |  |

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# CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Moderna Part #: 60075  
Manufacturer Name: Moderna Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Plascap  
Manufacturer Lot: 7006320008 (Labeled Drug Product)  
Moderna Lot Number: 6007520008 Specification: SPC-1063  
Date of Manufacture: 21Aug2020 Expiry Date: 21Feb2021

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion                                       | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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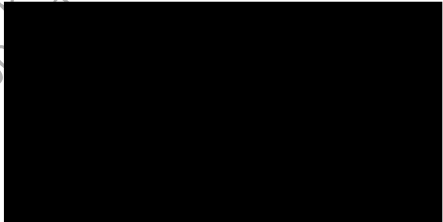

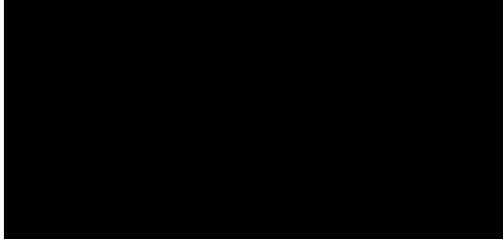
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## CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320008 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520008                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 21Aug2020                            | Expiry Date:       | 21Feb2021                                     |

| Product Attribute  | Method   | Parameter                     | Specification   | Result  |
|--------------------|----------|-------------------------------|---|---|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference   | Conforms  |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference   | Conforms  |
|                    |          | SM102                         |  |   |
|                    |          | Cholesterol                   |   |   |
| Lipid Impurities   |          | DSPC                          |   |   |
|                    |          | PEG-DMG                       |   |   |
|                    |          | % Area 1                      | Report Results  |  |
|                    |          | % Area 2                      | Report Results  |   |
|                    |          | % Area 3                      | Report Results  |   |
|                    |          | RRT 1                         | Report Results  |   |
|                    |          | RRT 2                         | Report Results  |   |
|                    |          | RRT 3                         | Report Results  |   |
| Particulate Matter | SOP-0509 | % Total Impurities            | Report % area of total impurities   |   |
|                    |          | 10 µM particles per container |   |   |
|                    |          | 25 µM particles per container |   |   |
| Container Content  | SOP-0950 | Container Content             |   |   |

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## CERTIFICATE OF ANALYSIS

|                      |                                      |                    |   |
|----------------------|--------------------------------------|--------------------|---|
| Product Description: | mRNA-1273                            | Moderna Part #:    | 60075   |
| Manufacturer Name:   | Moderna                              | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Plascap |
| Manufacturer Lot:    | 7006320008 (Labeled<br>Drug Product) |                    |   |
| Moderna Lot Number:  | 6007520008                           | Specification:     | SPC-1063                                      |
| Date of Manufacture: | 21Aug2020                            | Expiry Date:       | 21Feb2021                                     |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

Revision History:

1.0 - Original

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|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 057G20     |                    |   |
| Moderna Lot Number:  | 6007320001 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 30Jul2020  | Expiry Date:       | 30Jan2021                                 |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion.                                      | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 057G20     |                    |   |
| Moderna Lot Number:  | 6007320001 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 30Jul2020  | Expiry Date:       | 30Jan2021                                 |

| Product Attribute | Method   | Parameter          | Specification                       | Result   |                               |  |
|-------------------|----------|--------------------|-------------------------------------|----------|-------------------------------|--|
| Lipid Content     |          | DSPC               | Matches Retention Time of Reference | Conforms |                               |  |
|                   |          | PEG-DMG            | Matches Retention Time of Reference | Conforms |                               |  |
|                   |          | SM102              |                                     |          |                               |  |
|                   |          | Cholesterol        |                                     |          |                               |  |
| DSPC              |          |                    |                                     |          |                               |  |
| PEG-DMG           |          |                    |                                     |          |                               |  |
| Lipid Impurities  | % Area 1 |                    |                                     |          |                               |  |
|                   | % Area 2 |                    |                                     |          |                               |  |
|                   | % Area 3 |                    |                                     |          |                               |  |
|                   | % Area 4 |                    |                                     |          |                               |  |
|                   |          | RRT 1              | Report Results                      |          |                               |  |
|                   |          | RRT 2              | Report Results                      |          |                               |  |
|                   |          | RRT 3              | Report Results                      |          |                               |  |
|                   |          | RRT 4              | Report Results                      |          |                               |  |
|                   |          | % Total Impurities |                                     |          |                               |  |
|                   |          | Particulate Matter | SOP-0509                            |          | 10 µM particles per container |  |
|                   |          |                    |                                     |          | 25 µM particles per container |  |

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## CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 057G20     |                    |   |
| Moderna Lot Number:  | 6007320001 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 30Jul2020  | Expiry Date:       | 30Jan2021                                 |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    |               |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

Revision History:

1.0 - Original

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Document Approvals  
Approved Date: 15 Sep 2020

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| Approval<br>Verdict: Approved    |  |  |
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# CERTIFICATE OF ANALYSIS

|                      |            |                    |  |
|----------------------|------------|--------------------|--|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                  |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper, 20mm Cap |
| Manufacturer Lot:    | 062G20     |                    |  |
| Moderna Lot Number:  | 6007320002 | Specification:     | SPC-1128                               |
| Date of Manufacture: | 06Aug2020  | Expiry Date:       | 06Feb2021                              |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion.                                      | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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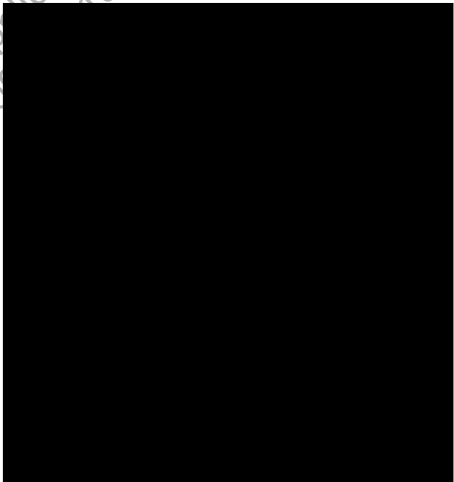

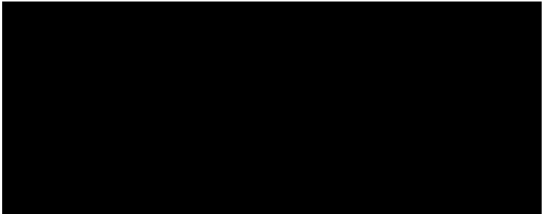
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CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 062G20     |                    |   |
| Moderna Lot Number:  | 6007320002 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 06Aug2020  | Expiry Date:       | 06Feb2021                                 |

| Product Attribute  | Method   | Parameter                     | Specification  | Result  |
|--------------------|----------|-------------------------------|--|---|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference  | Conforms  |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference  | Conforms  |
|                    |          | SM102                         |   |   |
|                    |          | Cholesterol                   |  |   |
| Lipid Impurities   |          | DSPC                          |  |   |
|                    |          | PEG-DMG                       |  |   |
|                    |          | % Area 1                      |  |   |
|                    |          | % Area 2                      |  |   |
|                    |          | % Area 3                      |  |   |
|                    |          | % Area 4                      |  |   |
|                    |          | RRT 1                         | Report Results   |  |
|                    |          | RRT 2                         | Report Results   |   |
|                    |          | RRT 3                         | Report Results   |   |
|                    |          | RRT 4                         | Report Results   |   |
| Particulate Matter | SOP-0509 | % Total Impurities            |  |   |
|                    |          | 10 µM particles per container |  |   |
|                    |          | 25 µM particles per container |  |   |

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CERTIFICATE OF ANALYSIS

Product Description: mRNA-1273 Moderna Part #: 60073  
Manufacturer Name: Moderna Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Cap  
Manufacturer Lot: 062G20  
Moderna Lot Number: 6007320002 Specification: SPC-1128  
Date of Manufacture: 06Aug2020 Expiry Date: 06Feb2021

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    |               |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

Revision History:

1.0 - Original

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# CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 001H20     |                    |   |
| Moderna Lot Number:  | 6007320003 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 11Aug2020  | Expiry Date:       | 11Feb2021                                 |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion.                                      | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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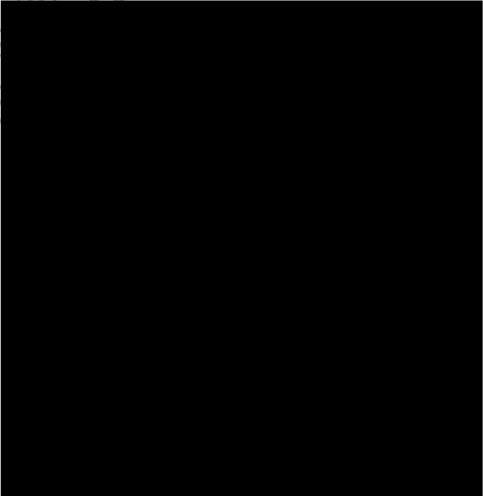

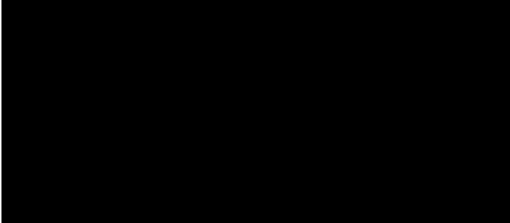
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CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 001H20     |                    |   |
| Moderna Lot Number:  | 6007320003 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 11Aug2020  | Expiry Date:       | 11Feb2021                                 |

| Product Attribute  | Method   | Parameter                     | Specification  | Result  |
|--------------------|----------|-------------------------------|--|---|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference  | Conforms  |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference  | Conforms  |
|                    |          | SM102                         |   |   |
|                    |          | Cholesterol                   |  |   |
| Lipid Impurities   |          | DSPC                          |  |   |
|                    |          | PEG-DMG                       |  |   |
|                    |          | % Area 1                      |  |   |
|                    |          | % Area 2                      |  |   |
|                    |          | % Area 3                      |  |   |
|                    |          | % Area 4                      |  |   |
|                    |          | RRT 1                         | Report Results   |  |
|                    |          | RRT 2                         | Report Results   |   |
|                    |          | RRT 3                         | Report Results   |   |
|                    |          | RRT 4                         | Report Results   |   |
| Particulate Matter | SOP-0509 | % Total Impurities            |  |   |
|                    |          | 10 µM particles per container |  |   |
|                    |          | 25 µM particles per container |  |   |

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## CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Moderna    | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 001H20     |                    |   |
| Moderna Lot Number:  | 6007320003 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 11Aug2020  | Expiry Date:       | 11Feb2021                                 |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    |               |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | SOP-0378 | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

Revision History:

1.0 - Original

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| QA Approval<br>Verdict: Approved |  |

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# CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Catalent   | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 032H20     |                    |   |
| Moderna Lot Number:  | 6007320004 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 13Sep2020  | Expiry Date:       | 13Mar2021                                 |

| Product Attribute              | Method   | Parameter                 | Specification   | Result                           |
|--------------------------------|----------|---------------------------|---|----------------------------------|
| Appearance                     | SOP-0278 | Appearance - Color        | White to off-white dispersion.                                      | White to off-white dispersion    |
|                                |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration                  | SOP-0235 | Concentration             |   |                                  |
| Identity                       | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                         | SOP-0383 | Purity                    |   |                                  |
|                                |          | % IG1                     | Report %Area  |                                  |
|                                |          | % IG2                     | Report %Area  |                                  |
|                                |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation            | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation (Potency) | SOP-0937 | Result                    |   |                                  |
| pH                             | SOP-0288 | pH                        |   |                                  |
| Osmolality                     | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering       | SOP-0107 | Particle Size             |   |                                  |
|                                |          | Polydispersity            |   |                                  |
| Lipid Identification           | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                                |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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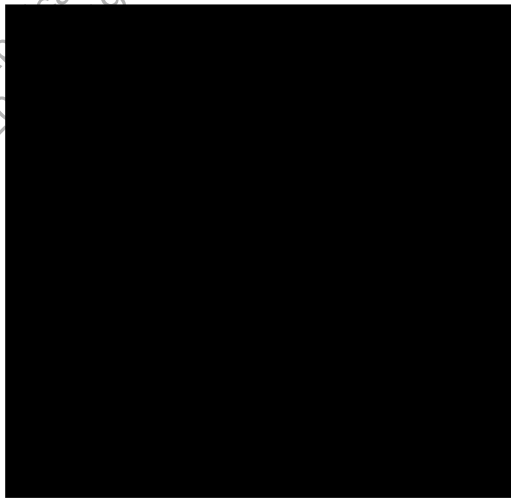

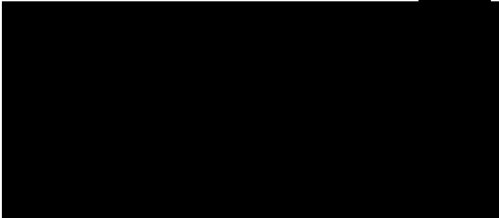
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Generated Date: 13-Nov-2020

## CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Catalent   | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 032H20     |                    |   |
| Moderna Lot Number:  | 6007320004 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 13Sep2020  | Expiry Date:       | 13Mar2021                                 |

| Product Attribute  | Method   | Parameter                     | Specification  | Result  |
|--------------------|----------|-------------------------------|--|---|
| Lipid Content      |          | DSPC                          | Matches Retention Time of Reference  | Conforms  |
|                    |          | PEG-DMG                       | Matches Retention Time of Reference  | Conforms  |
|                    |          | SM102                         |   |   |
|                    |          | Cholesterol                   |  |   |
| Lipid Impurities   |          | DSPC                          |  |   |
|                    |          | PEG-DMG                       |  |   |
|                    |          | % Area 1                      |  |   |
|                    |          | % Area 2                      |  |   |
|                    |          | % Area 3                      |  |   |
|                    |          | % Area 4                      |  |   |
|                    |          | RRT 1                         | Report Results   |  |
|                    |          | RRT 2                         | Report Results   |   |
|                    |          | RRT 3                         | Report Results   |   |
|                    |          | RRT 4                         | Report Results   |   |
| Particulate Matter | SOP-0509 | % Total Impurities            |  |   |
|                    |          | 10 µm particles per container |  |   |
|                    |          | 25 µm particles per container |  |   |

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## CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Catalent   | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 032H20     |                    |   |
| Moderna Lot Number:  | 6007320004 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 13Sep2020  | Expiry Date:       | 13Mar2021                                 |

| Product Attribute    | Method   | Parameter            | Specification | Result    |
|----------------------|----------|----------------------|---------------|-----------|
| Container Content    | SOP-0950 | Container Content    |               |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins |               |           |
| Sterility            | USP <71> | Sterility            | No Growth     | No Growth |

This material meets specification: Yes

### Revision History:

1.0 - Original

2.0 - Revised expiration date to 13Mar2021

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13-Nov-2020

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Approved Date: 13 Nov 2020

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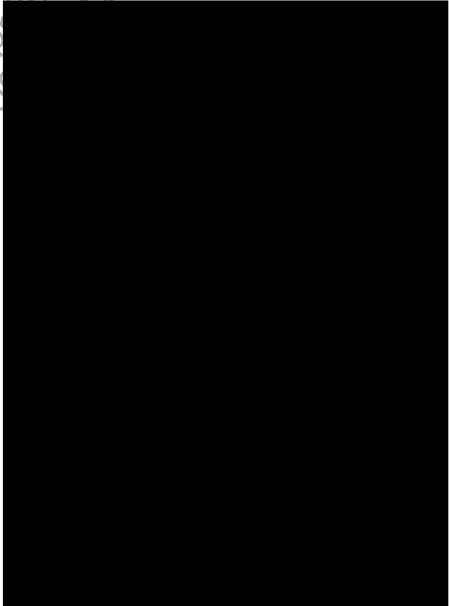
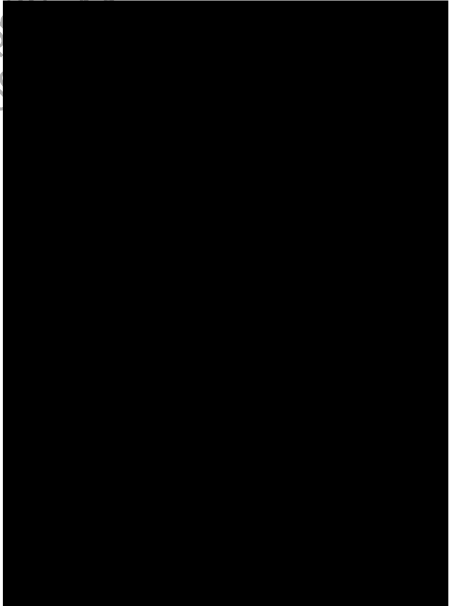

Product Description: mRNA-1273 Moderna Part #: 60073  
Manufacturer Name: Catalent Container/Closure: 10R Glass Vial, 20mm Stopper, 20mm Cap  
Manufacturer Lot: 011J20  
Moderna Lot Number: 6007320005 Specification: SPC-1128  
Date of Manufacture: 11Oct2020 Expiry Date: 11Apr2021

| Product Attribute        | Method   | Parameter                 | Specification   | Result                           |
|--------------------------|----------|---------------------------|---|----------------------------------|
| Appearance               | SOP-0278 | Appearance - Color        | White to off-white dispersion.                                      | White to off-white dispersion    |
|                          |          | Appearance - Particulates | May contain visible, white or translucent product-related particles | Essentially Free of Particulates |
| Concentration            | SOP-0235 | Concentration             |   |                                  |
| Identity                 | SOP-0544 | Identity                  | Sequence matches description  | Conforms                         |
| Purity                   | SOP-0383 | Purity                    |   |                                  |
|                          |          | % IG1                     | Report %Area  |                                  |
|                          |          | % IG2                     | Report %Area  |                                  |
|                          |          | % IG3                     | Report %Area  |                                  |
| % RNA Encapsulation      | SOP-0298 | % Encapsulation           |   |                                  |
| In vitro Translation     | SOP-0937 | Result                    |   |                                  |
| pH                       | SOP-0288 | pH                        |   |                                  |
| Osmolality               | SOP-0279 | Osmolality                |   |                                  |
| Dynamic Light Scattering | SOP-0107 | Particle Size             |   |                                  |
|                          |          | Polydispersity            |   |                                  |
| Lipid Identification     | SOP-0502 | SM102                     | Matches Retention Time of Reference                                 | Conforms                         |
|                          |          | Cholesterol               | Matches Retention Time of Reference                                 | Conforms                         |

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## CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Catalent   | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 011J20     |                    |   |
| Moderna Lot Number:  | 6007320005 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 11Oct2020  | Expiry Date:       | 11Apr2021                                 |

| Product Attribute | Method | Parameter   | Specification   | Result  |
|-------------------|--------|-------------|---|---|
| Lipid Content     |        | DSPC        | Matches Retention Time of Reference   | Conforms  |
|                   |        | PEG-DMG     | Matches Retention Time of Reference   | Conforms  |
|                   |        | SM102       |  |    |
| Lipid Impurities  |        | Cholesterol |   |   |
|                   |        | DSPC        |   |   |
|                   |        | PEG-DMG     |   |   |
|                   |        | % Area 1    |   |   |
|                   |        | % Area 2    |   |   |
|                   |        | % Area 3    |   |   |
|                   |        | % Area 4    |   |   |
|                   |        | % Area 5    |   |   |
|                   |        | % Area 6    |   |   |
|                   |        | RRT 1       | Report Results  |  |
|                   |        | RRT 2       | Report Results  |   |
|                   |        | RRT 3       | Report Results  |   |
|                   |        | RRT 4       | Report Results  |   |
|                   |        | RRT 5       | Report Results  |   |
|                   |        | RRT 6       | Report Results  |   |

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## CERTIFICATE OF ANALYSIS

|                      |            |                    |   |
|----------------------|------------|--------------------|---|
| Product Description: | mRNA-1273  | Moderna Part #:    | 60073                                     |
| Manufacturer Name:   | Catalent   | Container/Closure: | 10R Glass Vial, 20mm Stopper,<br>20mm Cap |
| Manufacturer Lot:    | 011J20     |                    |   |
| Moderna Lot Number:  | 6007320005 | Specification:     | SPC-1128                                  |
| Date of Manufacture: | 11Oct2020  | Expiry Date:       | 11Apr2021                                 |

| Product Attribute    | Method   | Parameter                     | Specification | Result    |
|----------------------|----------|-------------------------------|---------------|-----------|
|                      |          | % Total Impurities            |               |           |
| Particulate Matter   | SOP-0509 | 10 µm particles per container |               |           |
|                      |          | 25 µm particles per container |               |           |
| Container Content    | SOP-0950 | Container Content             |               |           |
| Bacterial Endotoxins | USP <85> | Bacterial Endotoxins          |               |           |
| Sterility            | USP <71> | Sterility                     | No Growth     | No Growth |

This material meets specification: Yes

### Revision History:

1.0 - Original  
2.0 - Revised expiry to 11Apr2021

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