# Product Information Sheet for NR-12316

## Influenza A Virus H1 Primers

## Catalog No. NR-12316

This reagent is the property of the U.S. Government.

**For research use only. Not for use in humans.**

**Contributor:**
BEI Resources

**Manufacturer:**
Integrated DNA Technologies, Inc.

**Product Description:**
NR-12316 contains forward and reverse primers that specifically amplify a region of the hemagglutinin (HA) gene of influenza A virus subtype 1 (H1). A PCR protocol is outlined in Appendix I.

**Material Provided:**
Each vial contains approximately 80 µL of a mixture of forward and reverse primers in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH ~ 7). The concentration is shown on the Certificate of Analysis.

**Packaging/Storage:**
Primers were packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -60°C or colder upon arrival. Freeze-thaw cycles should be minimized.

**Citation:**
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Influenza A Virus H1 Primers, NR-12316."

**Biosafety Level: 1**
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories (BMBL). Current Edition. Washington, DC: U.S. Government Printing Office.

**Disclaimers:**
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**References:**
1. Lee, M. S., et al. "Identification and Subtyping of Avian Influenza Viruses by Reverse Transcription-PCR." J. Virol. Methods 97 (2001): 13-22. PubMed: 11483213.

Support Provided by NIAID

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## APPENDIX I: INFLUENZA A VIRUS H1 PCR PROTOCOL

**Recommended Reagents/Equipment**

| Reagent | Source | Catalog No. |
|---|---|---|
| Influenza A Virus H1 Primers | BEI Resources | NR-12316 |
| Positive Control Template, Genomic RNA from Influenza A Virus, A/New Jersey/11/1976 (H1N1) Mutant, High (H) Yield HA, Kilbourne F7 | BEI Resources | NR-9685 |
| iTaq™ Universal SYBR® Green One-Step RT-PCR Kit | Biorad | 10488085 |

**Reaction Mix[1]**

| Reagent | Stock Concentration | Volume per Reaction (µL) |
|---|---|---|
| RNase-free water | N/A | 17.4 |
| SYBR Green RT- PCR master mix | 2× | 25 |
| iScript reverse transcriptase enzyme mix | N/A | 0.6 |
| Primers[2] | 50 µM (each primer) | 2 |
| Template | 50 ng to 5000 ng | 5 |
| | | Total – 50 µL |

[1]Reaction mix should be kept on bench-top cooler until ready for use.
[2]Primers are supplied at working stock concentrations.

**Cycling Protocol**

| Cycle | No. of Repeats | Step | Conditions |
|---|---|---|---|
| 1 | 1 | 1 | 50°C for 10 minutes |
| 1 | 1 | 1 | 95°C for 1 minute |
| 2 | 40 | 1 | 95°C for 30 seconds |
| | | 2 | 53°C for 30 seconds |
| | | 3 | 72°C for 1 minute |
| 3 | 1 | 1 | 72°C for 10 minutes |
| 4 | Indefinite | 1 | Hold at 4°C |

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