# Product Information Sheet for NR-19435

## H1N1pdm09 Expression Clone Set, Recombinant in *Escherichia coli*

## Catalog No. NR-19435

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

## For research use only. Not for human use.

### Contributor:

Pathogen Functional Genomics Resource Center at the J. Craig Venter Institute

### Manufacturer:

BEI Resources

### Product Description:

Production in the 96-well format has increased risk of cross-contamination between adjacent wells. Individual clones should be purified (e.g. single colony isolation and purification using good microbiological practices) and sequence-verified prior to use. BEI Resources does not confirm or validate individual mutants provided by the contributor.

The H1N1pdm09 Expression Clone Set (also 2009 H1N1 Expression Clone Set) contains Influenza A (H1N1)pdm09 open reading frames from two clinical isolates A/New York/1682/2009 (H1N1)pdm09 (CY039901 to CY039908) and A/New York/1669/2009 (H1N1)pdm09 (CY039893 to CY039900) cloned in *Escherichia coli* (*E. coli*) DH10B cells. The clone set consists of thirty clones that were constructed in either pIVE-LIC-His_cHalo, or the Promega vectors pFC20A or pFC14A. The full annotated coding sequence (CDS) for each genomic segment has been cloned (stop codons removed) and the sequence verified. The hemagglutinin CDS was truncated to remove the 3' transmembrane domain and the tailing sequence and the neuraminidase CDS was spliced to remove the 5' transmembrane domain but retain the 5' eighteen base pair leader sequence.

Detailed information about each clone is shown in Table 1. Information related to the use of the expression vector can be obtained from Promega.

### Material Provided:

Each well of the 96-well plate contains approximately 60 µL of *E. coli* culture (strain DH10B) in Luria Bertani (LB) broth containing 100 µg/mL ampicillin supplemented with 15% glycerol.

### Packaging/Storage:

NR-19435 was packaged aseptically in 96-well plates. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

### Growth Conditions:

Media:
LB agar containing 100 µg/mL ampicillin
Incubation:
Temperature: *E. coli*, strain DH10B clones should be grown at 37°C in a shaking incubator at 225 rpm
Atmosphere: Aerobic
Propagation:

1. Scrape top of frozen well with a pipette tip and streak onto agar plate.
2. Incubate the plates at 37°C for 18 to 24 hours.

### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: H1N1pdm09 Expression Clone Set, Recombinant in *Escherichia coli*, NR-19435."

### 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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

### Disclaimers:

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**Table 1: H1N1pdm09 Expression Clones**

| Clone | Well Position | ORF Length | Description | Average Depth of Coverage | Class[1] | Cell Type | Vector Type |
|---|---|---|---|---|---|---|---|
| 10043 | A01 | 792 | CDS(M1)_MP-NY1682 | 9.2 | A | DH10B | pIVE-LIC-cHalo |
| 10020 | A02 | 324 | CDS(M2)_MP-NY1682 | 7.7 | A | DH10B | pIVE-LIC-cHalo |
| 10030 | A03 | 399 | CDS(NS2)_NS-NY1669 | 7.3 | BLM | DH10B | pIVE-LIC-cHalo |
| 10041 | A04 | 399 | CDS(NS2)_NS-NY1682 | 7.3 | A | DH10B | pIVE-LIC-cHalo |
| 10609 | A05 | 2307 | CDS_PB1-NY1682 | 7.5 | BLM | DH10B | pIVE-LIC-cHalo |
| 10562 | A06 | 1623 | CDS(-TM)_HA-NY1682 | 5.6 | BLM | DH10B | pIVE-LIC-cHalo |
| 10579 | A07 | 1374 | CDS_NA_splice-NY1682 | 6.6 | BSC | DH10B | pIVE-LIC-cHalo |
| 10565 | A08 | 726 | CDS(NS1)_NS-NY1669 | 4.1 | A | DH10B | pIVE-LIC-cHalo |
| 10646 | A09 | 2184 | CDS_PA-NY1682 | 9.6 | A | DH10B | pIVE-LIC-cHalo |
| 10564 | A10 | 726 | CDS(NS1)_NS-NY1669 | - | V | DH10B | pIVE-LIC-cHalo |
| 10695 | A11 | 2327 | CDS_PB2-NY1682 | 7.9 | BLM | DH10B | pFC20A |
| 10756 | A12 | 2321 | CDS_PB1-NY1682 | 7.5 | BLM | DH10B | pFC20A |
| 10697 | B01 | 1637 | CDS(-TM)_HA-NY1682 | 8.0 | CFC | DH10B | pFC20A |
| 10194 | B02 | 1388 | CDS_NA_splice-NY1669 | 8.1 | BLM | DH10B | pFC20A |
| 10728 | B03 | 1388 | CDS_NA_splice-NY1682 | 7.0 | BSC | DH10B | pFC20A |
| 10193 | B04 | 806 | CDS(M1)_MP-NY1669 | 7.0 | A | DH10B | pFC20A |
| 10310 | B05 | 338 | CDS(M2)_MP-NY1669 | 3.7 | A | DH10B | pFC20A |
| 10272 | B06 | 707 | CDS(NS1)_NS-NY1669 | 5.9 | A | DH10B | pFC20A |
| 10700 | B07 | 413 | CDS(NS2)_NS-NY1682 | 5.3 | A | DH10B | pFC20A |
| 10394 | B08 | 1388 | CDS_NA_splice-NY1669 | 7.9 | A | DH10B | pFC14A |
| 10373 | B09 | 806 | CDS(M1)_MP-NY1669 | 5.8 | A | DH10B | pFC14A |
| 10831 | B10 | 2321 | CDS_PB1-NY1682 | 6.9 | BLM | DH10B | pFC14A |
| 10920 | B11 | 2327 | CDS_PB2-NY1682 | 8.0 | CSPT | DH10B | pFC14A |
| 10820 | B12 | 413 | CDS(NS2)_NS-NY1682 | 5.3 | A | DH10B | pFC14A |
| 10818 | C01 | 1388 | CDS_NA_splice-NY1682 | 6.9 | BSC | DH10B | pFC14A |
| 10092 | C02 | 740 | CDS(NS1)_NS-NY1669 | 5.1 | D | DH10B | pFC14A |
| 10090 | C03 | 338 | CDS(M2)_MP-NY1669 | 3.5 | A | DH10B | pFC14A |
| 12035 | C04 | 1544 | CDS_NP-NY1669 | 3.6 | BLM | DH10B | pFC14A |
| 12043 | C05 | 1637 | CDS(-TM)_HA-NY1669 | 4.9 | CFC | DH10B | pFC14A |
| 12044 | C06 | 1637 | CDS(-TM)_HA-NY1669 | 3.7 | CFC | DH10B | pFC14A |

[1]**A:** Full-length sequence validation, 2X or greater coverage, 100% sequence identity with the reference ORF.
**B:** Full-length sequence validation, sequence variation (less than 100% sequence identity with the reference ORF); remains valid.
**BLM:** B class clone with substitutions in CDS only at ≤ 0.2% mutation rate.
**BSC:** B class clone with substitutions in CDS only leading to silent mutations.
**C:** Full-length sequence validation, sequence variation (less than 100% sequence identity with the reference ORF); becomes invalid.
**CFC:** C class clone with frameshift mutations in CDS only.
**CSPT:** C class clone with substitution resulting in truncated protein (nonsense mutation).
**D:** Partial sequence validation, single contig with missing end-sequence (less than 90% sequence identity with the reference ORF).

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