

Product Information Sheet for NR-3484

Kilbourne F142: A/New Jersey/11/1976 (HA) x A/Puerto Rico/8/1934 (NA) (H1N1), Reassortant/Mutant X-53a (CL) – PR8 (H), Non-L, Non-H

Catalog No. NR-3484

Derived from NIAID Catalog No. V-331-0E4564

For research use only. Not for human use.

Contributor:

National Institute of Allergy and Infectious Diseases (NIAID),
National Institutes of Health (NIH)

Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Orthomyxoviridae, Influenzavirus A*

Species: Influenza A virus

Reassortant/Mutant: A/New Jersey/11/1976 (HA) x A/Puerto Rico/8/1934 (NA) (H1N1) [Kilbourne F142; X-53a (CL) – PR8 (H)]¹⁻³

Parents: X-53a (CL) (H1N1) and A/Puerto Rico/8/1934 (H1N1)

Comments: NR-3484 is a mutant of a previously isolated high yield reassortant of X-53a (CL) (H1N1) (Kilbourne F140; BEI Resources NR-3617)⁴ and A/Puerto Rico/8/1934 (H1N1), isolated after sequential passages under antigenic selection.^{1,5} X-53a (CL) in turn, was derived by selective passage and cloning of X-53 (Kilbourne F128; BEI Resources NR-3664), which is A/New Jersey/11/1976 (HA, NA) x A/Puerto Rico/8/1934 (H1N1).⁶ NR-3484 exhibits a high yield (H) biologic phenotype *in vitro*, but a non-L, non-H antigenic phenotype.⁵ This discrepancy is associated with a single amino acid change in the HA protein. The HA gene of NR-3484 is definitively derived from influenza A/New Jersey/11/1976 (H1N1), a human isolate recovered during the 1976 swine flu epidemic at Fort Dix, NJ. All other genes are from A/Puerto Rico/8/1934 (H1N1). The derivation and properties of various A/New Jersey/11/1976 (H1N1) reassortants, as well as cloned derivatives, mutants, and re-reassortants thereof, have been described in detail.^{5,7,8}

Material Provided:

Each vial contains approximately 1 mL of pooled allantoic fluid from specific pathogen free (SPF) embryonated chicken eggs infected with reassortant/mutant influenza A virus, A/New Jersey/11/1976 (HA) x A/Puerto Rico/8/1934 (NA) (H1N1), Non-L, Non-H.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-3484 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°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:

Host: 9- to 11-day-old SPF embryonated chicken eggs

Infection: Embryonated chicken eggs must be candled for viability prior to inoculation

Incubation: 2 days at 35°C in a humidified chamber

Effect: Hemagglutination activity using chicken red blood cells and allantoic fluid from infected embryonated chicken eggs

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Kilbourne F142: A/New Jersey/11/1976 (HA) x A/Puerto Rico/8/1934 (NA) (H1N1), Reassortant/Mutant X-53a (CL) – PR8 (H), Non-L, Non-H, NR-3484."

Biosafety Level: 2

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.

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References:

1. http://www.flu-archive.org/data_sheets/F142.doc
2. <http://www.flu-archive.org/>
3. http://www.flu-archive.org/search/results.pl?search_string=&join_type=and
4. http://www.flu-archive.org/data_sheets/F140.doc
5. Both, G.W., et al. "Influenza A Virus Hemagglutinin of Swine Influenza Virus: A Single Amino Acid Change Pleiotropically Affects Viral Antigenicity and Replication." *Proc. Natl. Acad. Sci. USA* 80 (1983): 6996-7000. PubMed.
6. http://www.flu-archive.org/data_sheets/F128.doc
7. Kilbourne, E. D. "Genetic Dimorphism in Influenza Viruses: Characterization of Stably Associated Hemagglutinin Mutants Differing in Antigenicity and Biological Properties." *Proc. Natl. Acad. Sci. USA* 75 (1978): 6258-6262. PubMed: 282644.
8. Kilbourne, E. D., W. Gerhard and C. W. Whitaker. "Monoclonal Antibodies to the Hemagglutinin Sa Antigenic Site of A/PR/8/34 Influenza Virus Distinguish Biologic Mutants of Swine Influenza Virus." *Proc. Natl. Acad. Sci. USA* 80 (1983): 6399-6402. PubMed: 6194531.

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