Kilbourne F35: A/Wilson-Smith/1933 (HA) x A/New Jersey/11/1976 (NA) x A/Puerto Rico/8/1934 (H1N1)

Catalog No. NR-3460

Derived from NIAID Catalog No. V-331-0E3654

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: A/Wilson-Smith/1933 (HA) x A/New Jersey/11/1976 (NA) x A/Puerto Rico/8/1934 (H1N1) (Kilbourne F35)[1-3]
Parents: A/Wilson-Smith/1933 (H1N1) and X-54a (H7N1)
Comments: NR-3460 is an antigenic hybrid reassortant virus that carries the H1 hemagglutinin (HA) of influenza A virus, A/Wilson-Smith/1933 (H1N1) and the neuraminidase (NA) of influenza A virus, A/New Jersey/11/1976 (H1N1), a human isolate recovered during the 1976 swine flu epidemic at Fort Dix, NJ (Kilbourne F9, BEI Resources NR-3595).[4,5] The parents of this reassortant are influenza A/Wilson-Smith/1933 (H1N1) and the H7N1 reassortant X-54a (Kilbourne F144, BEI Resources NR-3665).[6] The parents of X-54a, in turn, are A/equine Prague/1/1956 (H7N7) and X-53a (H1N1) (Kilbourne F139, BEI Resources NR-3581).[7] X-53a is a high yield mutant of reassortant X-53 (Kilbourne F128, BEI Resources NR-3664),[8] which is A/New Jersey/11/1976 (HA, NA) x A/Puerto Rico/8/1934 (H1N1). Nucleotide sequencing at BEI Resources of a portion of the matrix (M) gene (RNA 7) from NR-3460 indicates that the M gene is derived from A/Puerto Rico/8/1934 (H1N1). The five genes encoding the remaining internal proteins and the nonstructural protein may be derived from any of A/equine/Prague/1/1956 (H7N7), A/Puerto Rico/8/1934 (H1N1), or from A/Wilson-Smith/1933 (H1N1). The presence of internal and/or nonstructural genes derived from A/New Jersey/11/1976 (H1N1) in NR-3460 is ruled out since X-53 is a 6 + 2 reassortant that carries only the HA and NA genes of the A/New Jersey/11/1976 (H1N1), with all other genes derived from A/Puerto Rico/8/1934 (H1N1).[8]

Material Provided:

Each vial contains approximately 1 mL of pooled allantoic fluid from specific pathogen free (SPF) embryonated chicken eggs infected with reassortant influenza A virus, A/Wilson-Smith/1933 (HA) x A/New Jersey/11/1976 (NA) x A/Puerto Rico/8/1934 (H1N1).

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

Packaging/Storage:

NR-3460 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 F35: A/Wilson-Smith/1933 (HA) x A/New Jersey/11/1976 (NA) x A/Puerto Rico/8/1934 (H1N1), NR-3460."

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. https://www.beiresources.org/Portals/2/Flu-archiveDocs/F35.doc
2. https://www.beiresources.org/Flu-archive.aspx
3. https://www.beiresources.org/FluVirusCatalog.aspx
4. 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.
5. https://www.beiresources.org/Portals/2/Flu-archiveDocs/F9.doc
6. https://www.beiresources.org/Portals/2/Flu-archiveDocs/F144.doc
7. https://www.beiresources.org/Portals/2/Flu-archiveDocs/F139.doc
8. https://www.beiresources.org/Portals/2/Flu-archiveDocs/F128.doc

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