Monoclonal Anti-Influenza Virus H1 Hemagglutinin (HA), A/California/04/2009 (H1N1)pdm09, Clone S-OIV-12F3 (produced *in vitro*)

Catalog No. NR-19867

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Antibody Class: IgG2aκ

Mouse monoclonal antibody prepared against the H1 hemagglutinin (HA) protein of the A/California/04/2009 (H1N1)pdm09 strain of influenza virus was purified from clone S-OIV-12F3 hybridoma supernatant by protein G affinity chromatography. The B cell hybridoma was generated by the fusion of Sp2/0 mouse myeloma cells with splenocytes from BALB/c mice immunized by intraperitoneal injection with influenza virus A/California/04/2009 (H1N1)pdm09.[1]

HA is an antigenic glycoprotein found on the envelope of the influenza A virus. This protein binds to cellular receptors on the target cell and allows the influenza A virus to enter via endocytosis and membrane fusion. HA is an important target for drug and vaccine development.

Material Provided:

Each vial of NR-19867 contains approximately 100 µL of purified monoclonal antibody in PBS. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-19867 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-19867 is reported to function in hemagglutination inhibition tests and to bind to influenza virus A/California/04/2009 (H1N1)pdm09 in ELISA.[2] In combination with NR-19864 and NR-19866, NR-19867 can be used in a sandwich ELISA that distinguishes influenza A (H1N1)pdm09 viruses from other swine-origin H1 viruses as well as human seasonal H1N1 and H3N2 viruses.[3] NR-19867 is also useful in indirect immunofluorescence assays. See Certificate of Analysis for details.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Influenza Virus H1 Hemagglutinin (HA), A/California/04/2009 (H1N1)pdm09, Clone S-OIV-12F3 (produced *in vitro*), NR-19867."

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.

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References:

1. Shao, H., et al. "A Novel Monoclonal Antibody Effective Against Lethal Challenge with Swine-Lineage and 2009 Pandemic H1N1 Influenza Viruses in Mice." Virology 417 (2011): 379-384. PubMed: 21774955.
2. D. R. Perez, personal communication.
3. Shao, H., et al. "A Monoclonal Antibody-Based ELISA for Differential Diagnosis of 2009 Pandemic H1N1." Influenza Other Respi. Viruses 5 Suppl. 1 (2011): 138-141. PubMed: 21761586.
4. Dawood, F. S., et al. "Emergence of a Novel Swine-Origin Influenza A (H1N1) Virus in Humans." N. Engl. J. Med. 360 (2009): 2605-2615. PubMed: 19423869. Erratum in N. Engl. J. Med. 361 (2009): 102.
5. Garten, R. J., et al. "Antigenic and Genetic Characteristics of Swine-Origin 2009 A(H1N1) Influenza Viruses Circulating in Humans." Science 325 (2009): 197-201. PubMed: 19465683.

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