Monoclonal Anti-Influenza Virus H5 Hemagglutinin (HA) Protein (VN04-2), A/Vietnam/1203/2004 (H5N1), (ascites, Mouse)

Catalog No. NR-2729

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Contributor:
BEI Resources

Manufacturer:
Rockland Immunochemicals Inc.

Product Description:
Antibody Class: IgG2aκ
Mouse monoclonal antibody specific to a recombinant form of the H5 hemagglutinin (HA) protein (GenPept: AAT73274) of the A/Vietnam/1203/2004 (H5N1) strain of influenza virus was produced in mouse ascites.[1,2] Ascites formation was induced by injecting cultured hybridoma cells into the peritoneal cavity of BALB/c mice that had been primed with Incomplete Freund's adjuvant.[3] Antibody-rich ascites fluid was aseptically harvested 1 to 2 weeks following hybridoma cell injection. The harvested ascites fluid was pooled and then clarified using centrifugation and filtration. Sodium azide (0.02%) and gentamycin (0.01%) were added to the pooled ascites fluid prior to vialing and lyophilization.

HA is an antigenic glycoprotein found on the surface of the influenza A virus that is responsible for binding of the virus to receptors on a cell that is being infected.[4,5] Following receptor binding, the influenza A virus can enter the cell via endocytosis and membrane fusion. H5 HA is associated with the pathogenicity of the deadly H5N1 avian influenza A virus because it readily undergoes proteolytic cleavage into an active form that is necessary for viral entry into cells.[6] As a result, HA is an important target for drug and vaccine development.[7,8]

Material Provided:
Each vial of NR-2729 contains lyophilized (0.5 mL containing 0.02% sodium azide and 0.01% gentamycin) mouse ascites fluid.

Packaging/Storage:
NR-2729 was packaged in glass serum vials with an aluminum crimp seal. The product is provided frozen and should be stored at -20°C to -40°C immediately upon arrival. Storage at warmer temperatures is not recommended due to a low bioburden. At colder temperatures, the rubber stopper may become brittle and compromise the seal. NR-2729 should be reconstituted with 0.5 mL of sterile distilled water. Reconstituted material should be stored at -20°C to -40°C. Reconstituted material may be thawed at room temperature and should be re-frozen.

Functional Activity:
NR-2729 is specific for the H5 HA subtype of the influenza A virus as determined in standard hemagglutination inhibition (HI) assays. NR-2729 also demonstrates high reactivity within the H5 HA subtype of recent Asian isolates of influenza A virus based on HI assays.

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.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Influenza Virus H5 Hemagglutinin (HA) Protein (VN04-2), A/Vietnam/1203/2004 (H5N1), (ascites, Mouse), NR-2729."

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BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

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E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898