## Product Information Sheet for NR-656

## N4 Neuraminidase (NA) Protein from Influenza Virus, A/grey teal/Australia/2/1979 (H4N4), Recombinant from baculovirus

## Catalog No. NR-656

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

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

Contributor and Manufacturer:<br>NIH - Influenza Pandemic Preparedness in Asia Program

## Product Description:

Recombinant N4 neuraminidase (NA) protein from influenza virus A/grey teal/Australia/2/1979 (H4N4) ${ }^{1}$ was produced in Sf9 insect cells using a baculovirus expression vector system. ${ }^{2,3}$ Recombinant N4 NA protein was purified using conventional chromatographic techniques.

## Material Provided:

Each vial contains 0.25 mL of purified recombinant N4 NA protein in 20 mM sodium phosphate and 0.5 M N -methyl $\alpha$-Dmannopyranoside ( pH 8.0 ). The concentration, expressed as $\mu \mathrm{g} / \mathrm{mL}$, is shown on the Certificate of Analysis.

## Packaging/Storage:

Purified recombinant N4 NA protein was packaged aseptically, in screw-capped plastic cryovials. This product is provided on wet ice and should be stored at 2 to $8^{\circ} \mathrm{C}$ immediately upon arrival.

## Functional Activity:

NR-656 is biologically active in a neuraminidase assay. NR-656 is specific to the N4 NA subtype of influenza virus as determined in serological neuraminidase inhibition (NI) assays. NR-656 demonstrates reactivity in NI and ELISA assays within the N4 NA subtype. Applications: NI, ELISA, SDS-PAGE, Western blot, antiserum preparation (immunogen).

## Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: N4 Neuraminidase (NA) Protein from Influenza Virus, A/grey teal/Australia/2/1979 (H4N4), Recombinant from baculovirus, NR-656."

## 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:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

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NR-656 is claimed in U.S. Patent Numbers 5,762,939 and 6,103,526, and the continuations, continuations-in-part, reissues and foreign counterparts thereof. Commercial use also requires a license from Protein Sciences Corporation, Meriden, Connecticut. For information call 203-686-0800.

## References:

1. Donis, R. O., W. J. Bean, Y. Kawaoka, and R. G. Webster. "Distinct Lineages of Influenza Virus H4 Hemagglutinin Genes in Different Regions of the World." Virology 169 (1989): 408-417. PubMed: 2705304.
2. Smith, G. E., et al. Method for Producing Influenza Hemagglutinin Multivalent Vaccines Using Baculovirus. MG-PMC, LLC, assignee. U.S. Patent 5,762,939. 09 Jun. 1998.
3. Smith, G. E., et al. Spodoptera frugiperda Single Cell Suspension Cell Line in Serum-Free Media, Methods of Producing and Using. Protein Sciences Corporation, assignee. U.S. Patent 6,103,526. 15 Aug. 2000.

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