

## Influenza A (H1N1) 2009 Monovalent Vaccine

### Catalog No. NR-20083

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

#### Contributor:

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

#### Manufacturer:

Novartis Vaccines and Diagnostics, Limited, Liverpool, United Kingdom

#### Product Description:

Influenza A (H1N1) 2009 (pdm09) Monovalent Vaccine is a subunit (purified surface antigen) influenza virus vaccine prepared from A/California/7/2009 (H1N1)pdm09-like virus propagated in the allantoic cavity of embryonated chicken eggs. The virus was harvested and clarified by centrifugation and filtration prior to inactivation with betapropiolactone. The inactivated virus was concentrated and purified by zonal centrifugation. The surface antigens, hemagglutinin and neuraminidase, were obtained from the influenza virus particle by further centrifugation in the presence of nonylphenol ethoxylate, a process which removes most of the internal proteins. The nonylphenol ethoxylate was removed from the surface antigen preparation. Thimerosal, a mercury derivative used during manufacture, was removed by the purification steps to a trace amount ( $\leq 1 \mu\text{g}$  mercury per dose). Each 0.5 mL dose may also contain residual amounts of egg proteins ( $\leq 1 \mu\text{g}$  ovalbumin), polymyxin ( $\leq 3.75 \mu\text{g}$ ), neomycin ( $\leq 2.5 \mu\text{g}$ ), betapropiolactone ( $\leq 0.5 \mu\text{g}$ ) and nonylphenol ethoxylate ( $\leq 0.015\%$  w/v).

The hemagglutinin content was standardized according to U.S. Public Health Service requirements. Each 0.5 mL syringe contains the recommended 15  $\mu\text{g}$  of hemagglutinin antigen.

**Please note that this vaccine preparation is being released for research use only and not for human use. Vaccines produced for the 2009-2010 season are now past their expiration dates.**

#### Material Provided:

Each syringe contains 0.5 mL of monovalent vaccine in phosphate-buffered saline.

#### Packaging/Storage:

NR-20083 contains a pre-filled 0.5 mL syringe. The product is provided on refrigerated bricks and should be stored at 2°C to 8°C immediately upon arrival. Do not freeze.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Influenza A (H1N1) 2009 Monovalent Vaccine, NR-20083."

#### 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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

#### Disclaimers:

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#### References:

1. Morse, D., et al. "Use of Influenza A (H1N1) 2009 Monovalent Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009."

- MMWR Recomm. Rep. 58 (2009): 1-8. PubMed: [19713882](#).
2. Fiore, A. E., et al. "Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010." MMWR Recomm. Rep. 59 (2010): 1-62. PubMed: [20689501](#).
3. [WHO Recommendations for Influenza Vaccines](#)

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