

### **Polyclonal Anti-Influenza Virus H4 (Hav4) Hemagglutinin (HA), A/Duck/Czechoslovakia/1956(H4N6), (antiserum, Goat)**

#### **Catalog No. NR-3155**

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#### **Lot (NIAID Catalog) No. V-315-531-157**

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

#### **Contributor:**

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

#### **Product Description:**

Reagent: Polyclonal antiserum

Host: Goat

Immunizing Antigen: Influenza Virus H4 (Hav4) Hemagglutinin  
(HA), A/duck/Czechoslovakia/56 (H4N6)

Immunizing Antigen Treatment: None

Adjuvant: Freund's Complete Adjuvant

#### **Material Provided/Storage:**

Content: Freeze-dried serum

Original Volume: 1.0 mL

Storage Temperature: 4°C

#### **Functional Activity:**

##### Hemagglutination Inhibition (HI):

Conditions: HI activity was determined as described.<sup>1</sup>

Briefly, the dilutions of antisera were allowed to interact with antigen for 60 minutes at 20°C before the addition of chicken erythrocytes.

##### Titer to Isolated Subunits (old nomenclature in parentheses):

H4N6 (Hav4Nav1) from A/duck/Czech/56: 1:160  
H1N1 (H0N1) from A/Puerto Rico/8/34: 1:20  
H1N1 (H0N1) from A/Bel/42: < 1:20  
H1N1 (H1N1) from A/Fort Monmouth/1/47: 1:20  
H2N2 (N2) from A/Singapore/1/57: < 1:20  
H3N2 from A/Hong Kong/1/68: < 1:20  
H1N1 (Hsw1N1) from A/swine/Iowa/15/30: < 1:20  
H7N7 (Heq1Neq1) from A/equine/Prague/1/56: < 1:20  
H3N8 (Heq2Neq2) from A/equine/Miami/1/63: < 1:20  
H7N7 (Hav1Nav2) from A/FPV/Dutch/27: < 1:20  
H10N7 (Hav2Neq2) from A/chicken/Germ/N/49: < 1:20  
H11N6 (Hav3Nav1) from A/duck/England/56: < 1:20  
H5N3 (Hav5Nav2) from A/tern/South Africa/61: < 1:20  
H6N2 (Hav6N2) from A/turkey/Mass/65: < 1:20  
H3N8 (Hav7Neq2) from A/duck/Ukraine/1/63: < 1:20  
H8N4 (Hav8Nav4) from A/turkey/Ontario/6118/68: < 1:20

##### Double Immunodiffusion:

Conditions: Hyland double immunodiffusion plates after disruption of purified virus with SDS<sup>2</sup>

##### Positive Reaction:

H4 (Hav4) very weak

##### Negative Reaction:

Ribonucleoprotein (RNP)

##### Single Radial Diffusion:

##### Negative Reaction:

Matrix protein

#### **Citation:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Polyclonal Anti-Influenza Virus H4 (Hav4) Hemagglutinin (HA), A/duck/Czechoslovakia/56 (H4N6), (antiserum, Goat), NR-3155."

#### **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, 2007; see [www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

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### References:

1. Fazekas de St. Groth, S. and R. G. Webster. "Disquisitions on Original Antigenic Sin. I. Evidence in Man." J. Exp. Med. 124 (1966): 331-345. PubMed: 5922742.
2. Schild, G. C. and H. G. Pereira. "Characterization of the Ribonucleoprotein and Neuraminidase of Influenza A Viruses by Immunodiffusion." J. Gen. Virol. 4 (1969): 355-363. PubMed: 4977660.

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