



# Swine-Origin and Seasonal Flu H1N1 Protein Detection Set

Cat. No.: PSI-1829



## Ψ Specifications

<b>SPECIES REACTIVITY:</b>	Human
<b>IMMUNOGEN:</b>	Rabbit polyclonal antibodies were raised against peptides corresponding to amino acid sequences from each of the corresponding proteins.
<b>TESTED APPLICATIONS:</b>	ELISA
<b>APPLICATIONS:</b>	These polyclonal antibodies can be used for detection of H1N1 Hemagglutinin or Neuraminidase proteins in bodily fluid or tissue by ELISA. Immunogenic peptides are provided as positive controls and to determine protein concentration. Each antibody will detect 2 ng of its corresponding peptide.

## Ψ Properties

<b>PURIFICATION:</b>	Antibodies are supplied as affinity chromatography purified IgG.
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	Antibody 1 mg/mL Peptide 200 µg/mL

**STORAGE CONDITIONS:**

Stable at 4 °C for three months, store at -20 °C for up to one year.

## Ψ Additional Info

**USER NOTE:**

Optimal dilutions for each application to be determined by the researcher.

## Ψ Background and References

**BACKGROUND:**

Influenza A virus is a major public health threat, killing more than 30,000 people per year in the USA. In early 2009, a novel swine-origin influenza A (H1N1) virus was identified in specimens obtained from patients in Mexico and the United States. The virus spread quickly around the world and on June 11, 2009, the World Health Organization declared it a pandemic. Influenza A virus has one of sixteen possible Hemagglutinin (HA) surface proteins and one of nine possible Neuraminidase (NA) surface proteins. The Hemagglutinin protein facilitates viral attachment while Neuraminidase is involved in viral release. These proteins also elicit immune responses that prevent infection or independently reduce viral replication. The genetic make-up of this swine flu virus is unlike any other: it is an H1N1 strain that combines a triple assortment first identified in 1998 including human, swine, and avian influenza with two new pig H3N2 virus genes from Eurasia, themselves of recent human origin (4). The distinct antigenic properties of the new swine virus compared with seasonal influenza A (H1N1) virus suggest that human immunity against new swine influenza virus is limited, although the age distribution of reported cases suggests some degree of protection in older age groups (5). Antibodies #5235 and 5239 are specific for the seasonal H1N1 influenza Hemagglutinin and will not recognize the corresponding Hemagglutinin sequence from the swine-origin H1N1 influenza (A/California/14/2009 (H1N1)). Similarly, antibodies #5237 and #5241 are specific for the swine-origin H1N1 influenza Hemagglutinin and will not recognize the seasonal H1N1 Hemagglutinin (A/Brisbane/59/2007 (H1N1)). The Neuraminidase antibodies #5247 and #5249 are specific for seasonal and swine-origin H1N1 influenza Neuraminidase, respectively.

**For images please see PDF data sheet**

**REFERENCES:**

- 1) Thompson WW, Shay DK, Weintraub, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA 2003; 289:179-186.
- 2) Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team, Dawood FS, Jain S, et al. Emergence of a novel swine-origin influenza A (H1N1) virus in humans. N. Engl. J. Med. 2009; 360:2605-15.
- 3) Butler D. Swine flu goes global. Nature 2009; 458:1082-3.
- 4) Morens DM, Taubenberger JK, and Fauci AS. The Persistent Legacy of the 1918 Influenza Virus. N. Engl. J. Med. 2009; Jun 29.

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