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Avian Flu (H5N1) Protein Detection Set

Cat. No.: PSI-1808

Avian Flu (H5N1) Protein Detection Set

Specifications

SPECIES REACTIVITY:	Human
IMMUNOGEN:	Rabbit polyclonal antibodies were raised against peptides corresponding to amino acid sequences from each of the corresponding proteins.
TESTED APPLICATIONS:	ELISA
APPLICATIONS:	These polyclonal antibodies can be used for detection of H5N1 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 10 ng of its corresponding peptide. Immunoblot applications are pending.
SPECIFICITY:	Efforts were made to use regions of each protein that appear to be relatively conserved across H5N1 sub-strains, but due to the inherent variability of the influenza virus, no guarantees can be made.

Properties

PURIFICATION:	Antibodies are supplied as affinity chromatography purified IgG.
PHYSICAL STATE:	Liquid
BUFFER:	PBS containing 0.02% sodium azide.

CONCENTRATION:	Antibody 1 mg/mL Peptide 200 µg/mL
STORAGE CONDITIONS:	H5N1 antibodies and peptides should be stored at -20˚C, stable for one year.

Additional Info

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

Background and References

BACKGROUND:	Influenza A virus is a major public health threat, killing more than 30,000 people per year in the USA. Novel influenza virus strains emerge periodically to which humans have little or no immunity, resulting in devastating pandemics. Influenza A can exist in a variety of animals; however it is in birds that all subtypes can be found. These subtypes are classified based on the combination of the virus coat glycoproteins hemagglutinin (HA) and neuraminidase (NA) subtypes. During 1997, an H5N1 avian influenza virus was determined to be the cause of death in 6 of 18 infected patients in Hong Kong. There was some evidence of human to human spread of this virus, but it is thought that the transmission efficiency was fairly low. Although it has been known that cleavage site and glycosylation patterns of the HA protein play important roles in determining the pathogenicity of H5 avian influenza viruses, it has only recently been shown that an additional glycosylation site within the globular head of the neuraminidase protein also contributes to the high virulence of the H5N1 virus. H5N1 hemagglutinin interacts with cell surface proteins containing oligosaccharides with terminal sialyl residues. Virus isolated from a human infected with the H5N1 strain in 1997 could bind to oligosaccharides from human as well as avian sources, indicating its species-jumping ability. **For images please see PDF data sheet**
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