

The background of the top half of the page is a dark blue image showing several spherical influenza virus particles. These particles are covered in a dense layer of surface proteins, which appear as lighter blue and white protrusions. The particles are slightly out of focus, creating a sense of depth.

# Influenza Virus Preparations

## Do you need expert support to help propagate and process influenza strains for your research or diagnostic kit production?

AVS Bio offers a variety of ready-to-ship type A and B viruses, prepared as infected allantoic fluid or sucrose-gradient purified reagents.

We also offer outsourcing of virus preparations using customer-supplied Biosafety Level 1 and 2 viruses to researchers in many disciplines. Viruses are grown in specific pathogen-free (SPF) embryonated chicken eggs and can be produced to meet your specific quantity. Final virus preparations can be delivered in crude (bulk fluids), concentrated, fractioned, or purified forms depending on your specific requirements.

### Avian Influenza Production

AVS Bio offers bulk production of Avian Influenza Type A, T/W/66 and other strains, for diagnostic and research purposes. Customizable inactivated chorio-allantoic membrane and allantoic fluid preparations are available as a raw material to be utilized as positive controls in your diagnostic kits and/or for your research purposes. Let us take the egg work out of your lab so you can focus on kit manufacturing.

### Benefits

- SPF eggs and birds utilized to guarantee specificity
- Egg handling expertise to maximize reactivity
- Ready-to-use, tested preparations to ensure convenience and confidence in a clean, efficacious product

### Influenza Antiserum Production

Influenza A/PR/8/34 antiserum is produced in SPF chickens under strict biosecurity in a room with HEPA-filtered air under positive pressure. The birds are immunized using whole virus for a monospecific polyclonal antibody. The antiserum is filtered sterile, in bulk, and heat inactivated before being bottled. It is available as liquid or lyophilized in sizes from 1 ml, 5 ml, 10 ml, 50 ml, and 100 ml (liquid only). We also offer Avian Influenza T/W/66 H9N2

### Human Influenza Strains on Inventory

- Influenza A/PR/8/34 (H1N1)
- Influenza A X-31, A/Aichi/68 (H3N2)
- Influenza A/Victoria/3/75 (H3N2)
- Influenza A/Hong Kong/8/68 (H3N2)
- Influenza B/Lee/40
- Customer-supplied Type A and B influenza strains (other custom virus preparations available, upon request)

and H5N2 antisera and can accommodate customized antibody preparations.

### Sucrose Gradient Purification of Human Influenza Viruses

SPF chicken embryos are inoculated with BSL-2 virus stock provided by us or the customer. After incubation, the eggs are chilled and the infected allantoic fluid (AF) is harvested from each egg. The allantoic fluid in each harvest container is then tested for sterility. The sterile AF is then concentrated via tangential flow filtration (TFF), and the virus is pelleted via centrifugation.

The pellet is resuspended in a HEPES-buffered saline, sonified, and placed on a sucrose step gradient and then centrifuged.

The interface band is removed and washed in buffer to remove sucrose. The pellet is then resuspended in the HEPES-buffered saline and a colorimetric protein assay is performed on the bulk material. The material is diluted to 2 mg/ml of total protein in buffer (or as requested) and bottled in 1 ml aliquots for standard inventoried antigen. Inventoried product is tested for hemagglutination and protein concentration. Live preparations are also tested for an EID50 titer (Embryo Infectious Dosage at 50%).

### Human Influenza Virus

Strain	PURIFIED (2 mg/ml)	PURIFIED & INACTIVATED (2 mg/ml)	ALLANTOIC FLUID
Influenza A/PR/8/34 (H1N1)	10100374	10100782	10100781
Influenza A X-31, A/Aichi/68 (H3N2)	10100375	10100784	10100783
Influenza A/Victoria/3/75 (H3N2)	10100376	N/A	10100785
Influenza A/Hong Kong/8/68 (H3N2)	10100378	N/A	10100787
Influenza B/Lee/40	10100379	N/A	10100788

### Human Influenza Avian Antisera

Influenza A/PR/8/34	1 ml	5 ml	10 ml	50 ml	100ml
Liquid Material Number	10100663	10100664	10100665	10100666	10100667
Lyophilized Material Number	10100502	10100503	10100504	10100505	N/A