



**Microbix Biosystems Inc.**

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*Product Name:*

## Influenza A Nucleoprotein Antigen

*Catalogue Number\*:* EL-13-AD

*\*As specifications are not yet assigned to this product this is an interim catalogue number for record keeping purposes and may be revised.*

*Storage:* Store at -70 °C to -100 °C. Multiple freeze/thaw cycles should be avoided.

*Description:* Partially purified and concentrated influenza A virus nucleoprotein (NP) antigen packaged to provide a minimum of 40 µg·ml<sup>-1</sup> of NP. NP is the major structural RNA-binding protein of influenza and is an adapter molecule between virus and host cell processes. It is also the major type-specific antigen differentiating influenza A and B strains.

*Hazards:* We are aware of no specific biological hazards associated with this product. The preparation has been inactivated and should contain no infectious material. Generally accepted good laboratory practices appropriate to biological reagents should be employed in its handling. The storage buffer solution contains 0.02% sodium azide (CAS No. 26628-22-8) as a preservative and 0.1% *n*-tetradecyl-N,N-dimethyl-3-ammonio-1-propanesulfonate detergent (CAS No. 14933-09-6) as a solubilizing aid. Please consult the MSDS for appropriate handling precautions for solutions containing these reagents (available on request).

*Strain:* Influenza A/Texas/1/77 (H3N2), ICTV 00.046.0.01.001

*Cultured in:* Embryonated chicken eggs.

*Agent description:* Taxonomy: *Orthomyxoviridae/Influenzavirus A/Influenza A virus*. Virions consist of an envelope, a matrix protein, a nucleoprotein complex, a nucleocapsid, and a polymerase complex. Virus capsid is enveloped. Virions are spherical to pleomorphic; filamentous forms occur (sometimes). Virions measure 80-120 nm in diameter, 200-300 (-3000) nm in length. The genome is segmented and consists of eight segments of linear negative-sense, single-stranded RNA. Influenza A virus can cause mild to severe illness, and at times can lead to death. It may cause fever, cough, sore throat, runny or stuffy nose, aches, and sometimes diarrhea and vomiting.

*Preparation:* Influenza A virus is partially purified by selective precipitation from pooled influenza A virus infected allantoic fluid harvested from live eggs. After precipitation, the virus is pelleted by centrifugation and resuspended in a potassium phosphate based buffer containing detergent, stabilizer and a preservative.

*Recommendations for use:* Prior to use, vortex the thawed aliquot, taking care not to induce excess foaming.

*Assistance:* If you have any questions regarding the production, testing or use of this antigen, please send them together with any relevant data to Microbix Technical Services, at [customer.service@microbix.com](mailto:customer.service@microbix.com) or fax 905-361-8911. Your complete satisfaction with the performance of this product is important to us.

## Quality Control Information

Product name: Influenza A Nucleoprotein Antigen

Lot number: FLU13.14.07

*Inactivation:* Influenza A antigen is inactivated by gamma irradiation using a  $^{60}\text{Co}$  source. This procedure is effective primarily by damaging viral RNA. The inactivation is tested by inoculating an MDCK-cell monolayer with antigen. The culture is monitored for cytopathic effect for 3 days. If no sign of infection is observed the culture is passaged into a fresh monolayer. The second passage is monitored for a further 3 days. If no cytopathic effect is observed in either passage, the culture supernatant is tested for the presence of influenza hemagglutinin in a standard chick red blood cell hemagglutination assay. A negative result indicates inactivation of the virus.

Inactivation Assay Result: Inactive

Nucleoprotein: Minimum of  $40 \mu\text{g}\cdot\text{ml}^{-1}$

*Quality Control Summary:* This lot meets specifications and is released for shipment.



Quality Assurance Signature

Date: 25-April, 2011