

## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

### Certificate of Analysis and Data Sheet

## Native Influenza A Virus (H1N1) Hemagglutinin, New Caledonia 20 / 99 IV 116

#### Catalog No.

228-10163

### *Introduction*

H1N1 is a subtype species of Influenza A virus. H1N1 Influenza Virus has mutated into various strains such as the Spanish Flu strain, mild human flu strains, endemic pig strains, and various strains found in birds. The Influenza A Virus is a globular particle about 100nm in diameter, sheathed in a lipid bilayer derived from the plasma membrane of its host. Studded in the lipid bilayer are two integral membrane proteins some 500 molecules of hemagglutinin ("H") and some 100 molecules of neuraminidase ("N"). Within the lipid bilayer are 3000 molecules of matrix protein and 8 pieces of RNA. Each of the 8 RNA molecules is associated with many copies of a nucleoprotein, several molecules of the three subunits of its RNA polymerase some "non-structural" protein molecules of uncertain function.

### *Description*

Allantoic fluid of 10 days old embryonated eggs, inoculated with influenza A virus, strain A/ New Caledonia/20/99 IVR 116. The Influenza Virus was purified by Ultracentrifugation with 10-40 % sucrose gradient.

### *Inactivation*

Thimerosal and beta propiolactone treatment

This product has been treated in a manner consistent with methods of inactivation. Generally accepted good laboratory practices appropriate to microbiological/viral safe handling practices and techniques are required at work.

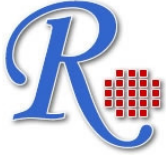
### *Physical Appearance*

Sterile Filtered colorless solution Formulation The H1N1 A/New Caledonia/20/99 IVR solution contains STE, 0.1 % sodium azide (NaN<sub>3</sub>) and 0.005 % thimerosal.

### *Stability*

A/New Caledonia/20/99 IVR although stable 4°C for 4 weeks, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



## **RayBiotech, Inc.**

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

---

### ***Immunological Activity***

Tested with anti-influenza A monoclonal antibodies in ELISA. Serological studies of influenza A virus, immunogen for antibody production.

### ***Purity***

Greater than 90.0% as determined by Analysis by SDS-PAGE.

### ***References***

A Patented Strain of Bacillus coagulans Increased Immune Response to Viral Challenge ., DOI: 10.3810/pgm.2009.03.1971 Postgraduate Medicine: Volume: 121 No.2

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**