Virus Name: Nola		Abbreviation: NOLAV
Status **Arbovirus**	Select Agent **No**	SALS Level **2**

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Simbu

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation	Accession Number	Original Date Submitted
DakArB 2882		8/29/1984

Family	Genus
Bunyaviridae	**Bunyavirus**

Information From	Address
J.P. Digoutte	**Institut Pasteur, B.P. 304, Cayenne, Guyane Francaise**

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)	Isolated at Institute	
J.P. Digoutte, R. Cordellier	**Bangui, Central African Republic**	
Host Genus **Culex perfuscus (pool of 100) (1)**	Species	Host Age/Stage **Imagos**

Sex
Female

Isolated From	Isolation Details
Signs and Symptoms of Illness	Arthropod
Time Held Alive before Inoculation	
Collection Method **Collected by hand**	Collection Date **7/4/1970**

Place Collected (Minimum of City, State, Country)
Environs of Nola village

Latitude	Longitude	
3° 20' N	**16° 1' E**	
Macrohabitat **Equatorial moist forest**	Microhabitat	Method of Storage until Inoculated **Liquid nitrogen, Revco at -75dC**

Footnotes

Section III - Method of Isolation

Inoculation Date
7/29/1970

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
No

Other Reasons
First virus of thistype in laboratory

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical

Pieces (number of genome segments)	Infectivity	Sedimentation Coefficients(s) (S)
Percentage wt, of Virion Protein	Lipid	Carbohydrate
Virion Polypeptides: Number	Details	
Non-virion Polypeptides: Number	Details	
Virion Density	Sedimentation Coefficients(s) (S)	
Nucleocapsid Density	Sedimentation Coefficients(s) (S)	

Stability of Infectivity (effects)

pH (infective range)

Lipid Solvent (ether - % used to test) **1:1**	After Treatment Titer **<2.0 dex**	Control Titer **4.6 dex**
Lipid Solvent (chloroform)	After Treatment Titer **<2.0 dex**	Control Titer **7.5 dex**
Lipid Solvent (deoxycholate) **0.2%**	After Treatment Titer **<2.0 dex**	Control Titer **4.0 dex**

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions	
Mean nm	Range nm	
Measurement Method	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination **Yes**	Antigen Source **Serum of baby mice, acetone- extracted**	Erythrocytes (species used) **Goose**
pH Range **5.9-6.4**	pH Optimum **5.9**	
Temperature Range	Temperature Optimum **Room temperature**	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

?? nd Telok Forest viruses than to members of the Simbu group [4] .

Institut Pasteur (Dakar) Dr. Y. Robin [2] :

CF test - homologous = 16/8. DakArB 2882 did not react with the viruses available in the WHO Regional Center.

Yale Arbovirus Research Unit [3]

CF test - homologous = 64/512. DakArB 2882 gives negative results with other ascitic fluids tested.

HI test, the antigen is inhibited by Simbu group (pooled) hyperimmune ascitic fluid (titer = 640) and with Guama group (titer = 10).
In the Simbu group, Nola HA antigen was inhibited by Manzanilla virus antibody but by no other sera prepared from the viruses of the Simbu group.
Following tables shows the relation to Manzanilla virus.

Hemagglutination-Inhibition Test2

HA antigen (8 units)	HI titer of antibody to:	
	Manzanilla	Nola
DakArB 2882	40	1280
Manzanilla	40	0

Neutralization Test

Serum	Virus	
	Nola	Manzanila
Nola	4.5 +	0.05
Manzanilla	0.23	2.88

+ LNI in dex

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Spleen (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice

Cell system (a)	Virus passage history (b)	Evidence of Infection							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
BHK-21 (CL)	SMB 9	4-5		6.5* (3)					
Vero (CL)		4-5		6.7					
Aedes aegypti (CL)	SMB 13		No CPE						
Aedes albopictus(CL)			No CPE	3.1-4.5				+	

* Expressed in dex

Section VII - Natural Host Range (Additional text can be added below table)

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Culex perfuscus	1/220 pools		Centr. Afr. Republic
Man		0/35 CF, HI	Dakar, Senegal (3)

Section VIII - Susceptibility to Experimental Infection (include viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log10/ml
Mice (nb)	SMB 7	ic 0.02	Viremia, viruria, death	2	7.5
Mice (nb)		ip 0.02	Death	2	
Mice (nb)		sc			
Mice (wn)		ic 0.03	Death		5.5
Mice (wn)		ip 0.01	Antibody		
rabbits (2-3 day)		ic 0.03	Death		

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmision by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System
Aedes aegypti (Amphur strain, Thailand) infected either by parental inoculation or by feeding on viremic baby mice transmitted virus to baby mice by feeding after 11 days at +80/F. Transovarian passage of virus by inoculated females could not be shown (3).									

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies — Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature	Residual	Death
Subclinical	Overt Disease	

Clinical Manifestations

Number of Cases — Category (i.e. febrile illness, etc.)

Section XII - Geographic Distribution

Known (Virus detected)
Central African Republic

Suspected (Antibody only detected)

Section XIII - References

1. Rapport Annuel de l'Institut Pasteur de Bangui. 1970. p. 44-45.
2. Robin, Y. Institut Pasteur de Dakar. Personal communication.
3. Etekamba Edem Ekwo. MPH Thesis. 1973. Yale University School of Medicine, Dept. of Epidemiology and Public Health.
4. Zeller, H. et al. 1989. II. Arch. Virol. Submitted.

Remarks