Virus Name: Bobia	Abbreviation: BIAV

Status
Possible Arbovirus

Select Agent
No

SALS Level
3

SALS Basis
Isufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.

Other Information

Antigenic Group
Olifantsvlei

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
ArB 1569

Accession Number

Original Date Submitted
10/12/1984

Family
Bunyaviridae

Genus
Bunyavirus

Information From
J.P. Digoutte

Address
Institut Pasteur, B.P. 304, Cayenne, Guyane Francaise

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
J.P. Digoutte and F.X. Pajot

Isolated at Institute
Bobia, Central African Republic

Host Genus
Culex trigripes

Species

Host Age/Stage
Adults (Imagos)

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod
Depleted

Time Held Alive before Inoculation
About 18 hours

Collection Method
Caught by hand

Collection Date
2/14/1969

Place Collected (Minimum of City, State, Country)
Bobia, Central African Republic

Latitude
4° 49' N

Longitude
18° 15' E

Macrohabitat
Tree savannah with forest gallery

Microhabitat
Ground level in a forest gallery

Method of Storage until Inoculated
Revco at -65dC

Footnotes

Section III - Method of Isolation

Inoculation Date
2/17/1969

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
Not tried

Other Reasons
First virus of this type in the 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)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform) **5%**	After Treatment Titer **<1.5 dex**	Control Titer **5.5 dex**
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions	
Mean nm	Range nm	
Measurement Method **Passed 220 nm Millipore filter**	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	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by sucrose-acetone**	**Goose**
pH Range **5.7-6.6**	pH Optimum	
Temperature Range **4dC, RT, 37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses

CF test - homologous titer = 64/16.

Institut Pasteur (Dakar) [2] : ArB 1569 antigen gave positive results with immune serum to Olifantsvlei (SA Ar 5133) virus and gave negative results with immune sera to other arboviruses that have been isolated in Africa.
Complement-fixation test:

	Antigens	
Ascitic fluid	Bobia ArB 1569	Olifantsvlei SAAr 5133
Bobia	64/8 *	8/8
Olifantsvlei	16/8	64/16

* Maximum titer of antiserum/optimum titer of antigen.

Neutralization test:

	Virus	
Ascitic fluid	Bobia ArB 1569	Olivantsvlei SAAr 5133
Bobia	> 3.8 **	>3.7
Olifantsvlei	2.8	4.2

** LNI in dex

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

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)	
Vero (CL)	SM 6		No CPE			No plaques			
PS (CL)			No CPE			No plaques			
LLCMK2 (CL)			No CPE			No plaques			

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 tigripes	1/121 pools		Central African Republic(1)

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)	6th	ic 0.02	Death	4	6.0
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic 0.03	Death	4	6.8
Mice (wn)		ip			
Mice (ad)		ip 0.1	Antibody		

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

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. Digoutte, J.P. 1969. Rapport Annuel de l'Institut Pasteur de Bangui, p. 44.
2. Robin, Y. Personal communication.

Remarks