

Virus Name: Birao		Abbreviation: BIRV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group Bunyamwera		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation DakArB 2198	Accession Number	Original Date Submitted 8/9/1984
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, R. Cordellier	Isolated at Institute Central African Republic, Bangui	
Host Genus Anopheles pharoensis	Species	Host Age/Stage Imagos
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method By hand	Collection Date 9/1/1969	
Place Collected (Minimum of City, State, Country) Birao village, Central African Republic		
Latitude 10° 17' N	Longitude 22° 47' E	
Macrohabitat Dry savannah	Microhabitat Very near Birao village	Method of Storage until Inoculated Liquid nitrogen until 4 Sept., then Revco at -75dC
Footnotes		

Section III - Method of Isolation

Inoculation Date
9/18/1969

Animal (Details will be in Section 6)
nb mice

Route Inoculated ic and ip	Reisolation Not tried
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Other Reasons
First virus of this type 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 4.5 dex	Control Titer 6.5 dex
Lipid Solvent (chloroform)	After Treatment Titer <2.0 dex	Control Titer 7.3 dex
Lipid Solvent (deoxycholate) 0.2%	After Treatment Titer <2.0 dex	Control Titer 7.5 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

Hemagglutination

Antigen Source

Erythrocytes (species used)

No

SMB ext. by sucrose-acetone

Goose

pH Range

pH Optimum

6.0-7.0

Temperature Range

Temperature Optimum

4dC, RT, 37dC

Remarks

Serologic Methods Recommended

CF, NT

Footnotes

CF tests - homologous = 32/128. Institut Pasteur (Dakar): DakArB 2198 gives positive results with the following immune fluids: Bunyamwera, Ilesha, Shokwe.

Cross-CF and neutralization tests with these viruses give the following results:

Antisera	CF Tests			
	DakArB 2198	Bunyamwera	Ilesha	Shokwe
DakArB 2198	32/128 *	16/64	16/128	16/64
Bunyamwera	16/64	16/64	8/128	16/64
Ilesha	128/64	64/64	128/128	128/64
Shokwe	128/64	128/64	128/128	256/64

* Antibody titer/antigen titer

Antisera	NT Indices			
	DakArB 2198	Bunyamwera	Ilesha	Shokwe
DakArB 2198	3.0**	3.4	1.5	0.9
Bunyamwera	1.8	4.0	0.1	0.4
Ilesha	2.1	0.1	4.0	2.6
Shokwe	0.8	0.1	2.0	4.4

** LNI in dex

Results indicate that DakArB 2198 is apparently a new virus.

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							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		

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
Anopheles pharoensis	2/13 pools		Central African Republic
Anopheles squamosus	1/7 pools		

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. 1969. p. 50. 2. Bres, P. Institut Pasteur de Dakar. Personal communication.

Remarks

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