

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

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation DakArB 209	Accession Number	Original Date Submitted 8/27/1984
Family Flaviviridae	Genus Flavivirus	
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 Institut Pasteur, Bangui	
Host Genus Mixed Culex	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method Human bait	Collection Date 3/31/1966	
Place Collected (Minimum of City, State, Country) Bagaza, Central African Republic		
Latitude 4° 53' N	Longitude 18° 0' E	
Macrohabitat Savannah with forest gallery	Microhabitat	Method of Storage until Inoculated Revco at -75dC
Footnotes		

Section III - Method of Isolation

Inoculation Date
7/28/1966

Animal (Details will be in Section 6)
nb mice

Route Inoculated ic and ip	Reisolation No
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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 2.1 dex	Control Titer 6.0 dex
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate) 0.2%	After Treatment Titer 1.0 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

Hemagglutination

Antigen Source

Erythrocytes (species used)

Yes

SMB ext. by sucrose-acetone

Goose

pH Range

pH Optimum

6.0-7.0

6.4

Temperature Range

Temperature Optimum

4C, RT, 37C

37dC

Remarks

Serologic Methods Recommended

CF, NT

Footnotes

CF test - homologous = 128/16. Institut Pasteur (Dakar) Y. Robin: ArB 209 gives positive results with the following sera; Group B immune grouping fluid, Ntaya, and was negative with other sera to arboviruses isolated in Africa.

Complement-fixation test:

Ascitic fluid	Antigens	
	Ntaya	ArB 209
Ntaya	128/16 *	16/16
ArB 209	32/16	128/16

* Maximum titer of antibody/optimum titer of antigen.

Hemagglutination-inhibition test:

Ascitic fluid	Antigens	
	Ntaya	ArB 209
Ntaya	40	20
ArB 209	320	1280

Neutralization test:

Ascitic fluid	Viruses	
	Ntaya	ArB 209
Ntaya	2.7 *	1.5
ArB 209	1.8	1.6

* Neutralization index expressed 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							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		
Vero (CL)					6	Plaques	7.4**(5)		
LLC-MK2 (CL)					7	Plaques	7.1 (5)		
PS (CL)					7	Plaques	6.6 (5)		

** Expressed in dex

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Mixed Culex	1		Centr.African Rep. (1)
Culex perfuscus	1/220 pools		Centr.African Rep. (2)
Culex guiarti	1/262 pools		Centr.African Rep. (3)
Culex guiarti and ingrami	1		Cameroun (2)
Culex thalassius	1		Senegal (4)
Man		0/3,468 HI (primary infection pattern) *	

* HI reactions in which Bagaza antigen was the sole positive reactant. There were positive reactions in which Bagaza reacted along with the other group B antigens tested.

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)	SM 11	ic 0.02	Death	4	5.4
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic 0.03	Death		
Mice (wn)		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)		Transmission 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, Cameroun, Senegal
Suspected (Antibody only detected)

Section XIII - References

1. Digoutte, J.P. Rapport Annuel de l'Institut Pasteur de Bangui. 1966. p. 40. 2. Digoutte, J.P. Rapport Annuel de l'Institut Pasteur de Bangui. 1968. pp. 48-52. 3. Digoutte, J.P. Rapport Annuel de l'Institut Pasteur de Bangui. 1969. p. 45. 4. Robin, Y. Institut Pasteur de Dakar. Personal communication. 5. Calisher, C.H., et al. Personal communication. 1984.
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Remarks

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