Virus Name: Babanki	Abbreviation: BBKV

Status
Probable Arbovirus

Select Agent
No

SALS Level

SALS Basis

Other Information

Antigenic Group
A

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
ArY 251 - 69

Accession Number

Original Date Submitted
12/19/1986

Family
Not listed

Genus
Alphavirus

Information From
G. LeGonidec and Arbovirus Reference Centre

Address
Institut Pasteur Paris and Institut Pasteur, BP 220 Dakar, Senegal

Information Footnote

Section II - Original Source

Isolated By (name)
J. Millan and M. Germain

Isolated at Institute
Institut Pasteur Du Cameroon, Yaounde

Host Genus
Mansonia africana, pool of 55 mosquitoes (1)

Species

Host Age/Stage
Adults

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Human bait

Collection Date
6/16/1969

Place Collected (Minimum of City, State, Country)
Bambalang Babanki, Cameroon

Latitude

Longitude

Macrohabitat
High Altitude palm trees, (Raphia sp)

Microhabitat

Method of Storage until Inoculated
Liquid nitrogen

Footnotes

Section III - Method of Isolation

Inoculation Date
9/26/1969

Animal (Details will be in Section 6)
nb mice

Route Inoculated	Reisolation
Intracerebral	**Not tried**

Other Reasons

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)	After Treatment Titer **6.4 dex**	Control Titer **9.5 dex**
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

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 **SMB ext. by sucrose-acetone**	Erythrocytes (species used) **Goose**
pH Range **6.0 - 6.6**	pH Optimum **6.2**	
Temperature Range	Temperature Optimum **Room temperature**	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

Institut Pasteur Dakar. Y. Robin, J.P. Digoutte and G. Heme.

CF test - homologous titer = 64/8.

ArY 251 did not react with any virus except Sindbis.

Cross-CF and -neutralization tests with this virus gace the following results:

ANTISERA	CF ANTIGENS		VIRUSES NT Indices (dex)	
	ArY 251	Sindbis	ArY 251	Sindbis
ArY 251	64/8 [a]	32/8	4.0	3.5
Sindbis	16/8	64/8	2.1	4.0

[a] Antiserum titer/ antigen titer

ANTISERA	PRNT in Vero Cells VIRUSES	
	ArY 251	Sindbis
ArY 251	512[b]	64
Sindbis	16	512

[b] Reciprocal of highest antiserum dilution producing 90% plaque inhibition.

Results indicate that strain ArY 251 apparently represent a hitherto undescribed virus related to Sindbis.

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)
KB (CL)	SMB 5	2	+					
Vero (CL)					2	4 - 5mm	7.40 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
Mansonia africana	7		Bambalang; Babanki; Yaounde; Ayos, Cameroon
Culex mosquitoes	7		Yaounde; Garoua, Cameroon
Aedes africanus	4		Bamali; Zoatoupsi; Ayos, Cameroon
Aedes simpsoni	1		M'Bakamo, Cameroon
Anopheles squamosus and sp.	2		Bamali; Ayos, Cameroon
Eretmapodites oedipodius	1		Ayos, Cameroon
Ticks Ambylomma, Boophilus	3		Younde, Cameroon
Human sera	2		Madagascar
Culex decens gr.	1		Madagascar
Culex mosquitoes	2		Kedougou, Senegal
Aedes vittatus	1		Kedougou, Senegal
Anopheles brohieri	1		Kedougou, Senegal
Culex telesilla, tigripes, weschei cinereus	8		Central African Republic
Human serum	1		Central African Republic
Culex decens gr. And perfuscus	4		Dabakala, Ivory Coast

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 5	ic	Death	2	9.5
"" (nb)		ip	Death	3	5.6
"" (nb)		sc			
"" (wn)		ic	Death	3	
"" (wn)		ip	Antibodies		

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)
Specific meningoencephalitis not seen.

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)
Cameroon, Central African Republic, Senegal, Madagascar, Ivory Coast

Suspected (Antibody only detected)

Section XIII - References

1. Robin, Y. 1970. Annual Report, Centre Collaborateur OMS de reference pour les arbovirus en Afrique de l'Quest. Dakar, Senegal.

Remarks