Virus Name: Kindia	Abbreviation: KINV

Status
Possible Arbovirus

Select Agent
No

SALS Level

SALS Basis

Other Information

Antigenic Group
Palyam

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
ArK 502

Accession Number

Original Date Submitted
12/19/1984

Family

Genus
Orbivirus

Information From
Guinea-USSR Lab, Virology & Microbiology

Address
IRBANC, BP 561, Conkary, Guinea Republic

Information Footnote

Section II - Original Source

Isolated By (name)
Virology Branch, Guinea-USSR Lab, Virology & Microbiology

Isolated at Institute
Conkary, Kindia

Host Genus
Amblyomma variegatum, pool of 90 ticks

Species

Host Age/Stage
Adults

Sex
Male

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod
Engorged

Time Held Alive before Inoculation

Collection Method
Collected from cows by hand

Collection Date
4/23/1983

Place Collected (Minimum of City, State, Country)
Kindia, Guinea

Latitude
10° 5' N

Longitude
12° 52' W

Macrohabitat
Deciduous forest pasture

Microhabitat
On cows

Method of Storage until Inoculated
froaen -25dC

Footnotes

Section III - Method of Isolation

Inoculation Date
5/4/1983

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Yes

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) **1:1**	After Treatment Titer **6.2 dex**	Control Titer **6.4 dex**
Lipid Solvent (chloroform)	After Treatment Titer **5.2 dex**	Control Titer **6.0 dex**
Lipid Solvent (deoxycholate) **1:100**	After Treatment Titer **6.1 dex**	Control Titer **6.4 dex**

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions **<220 nm**	
Mean nm	Range nm	
Measurement Method **Millipore filtration: After filtration = 6.4 dex;**	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 **5.8-7.6**	pH Optimum	
Temperature Range **4dC, 27dC**	Temperature Optimum	
Remarks		
Serologic Methods Recommended **CF, NT**		
Footnotes		

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

Institut Pasteur Dakar - J.P. Digoutte and G. Heme

CF test-homologous titer = 256/512.

ArK 502 gives positive results with the following immune fluids: Vellore, Abadina, Kasba, Palyam d'Aguilar, ArB 2032 (Petevo).

Neutralization test with these viruses gives the following results by plaque reduction technique on Vero cells.

ANTISERA	VIRUS						
	ArK 502	Abadina	Kasba	Vellore	Palyam	d'Aguilar	Petevo
Kindia (ArK 502)	512 *	0	0	0	0	0	0
Abadina	0	1024	128	0	0	0	0
Kasba	0	128	256	0	0	0	0
Vellore	16	0	0	512	0	0	0
Palyam	0	0	0	0	512	0	0
d'Anguilar	0	0	0	0	0	512	0
Petevo	0	0	0	0	0	0	512

* Reciprocal of highest diltuion producing . 90% plaque inhibition; 0 = <16.

Results indicate that ArK 502 apparently is 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						
		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	4-5	CPE irregular		5	3 mm	7.4 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
Amblyomma variegatum	1/5,020		Kindia region, Guinea (1)
Aedes (Aedimorphus) sp.	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)	SM 6	ic 0.02	Death	3-4	7.4
"" (nb)		ip 0.03	Death		
"" (nb)		sc 0.1	Death		
"" (wn)		ic 0.03	None		
"" (wn)		ip 0.1	None		
"" (ad)		ic 0.02	None		
"" (ad)		ip 0.3	Antibodies		
guinea pig		ip 0.3	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)

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)
Guinea

Suspected (Antibody only detected)

Section XIII - References

1. Institut Pasteur Dakar Annual Report, 1984. P. 101; 1985. P. 117.

Remarks