

Virus Name: Kedougou		Abbreviation: KEDV
Status Probable Arbovirus	Select Agent No	SALS Level
SALS Basis		
Other Information		
Antigenic Group B		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation ArD 14701	Accession Number	Original Date Submitted 3/5/1986
Family	Genus Flavivirus	
Information From Yves Robin	Address Institut Pasteur de Cayenne, BP 304, French Guyana	
Information Footnote		

Section II - Original Source

Isolated By (name) Y. Robin and M. Cornet	Isolated at Institute Institut Pasteur Dakar	
Host Genus Aedes minutus, pool of 67	Species	Host Age/Stage Adults
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 6/26/1972	
Place Collected (Minimum of City, State, Country) Km 14 near Kedougou, Senegal		
Latitude 12° 37' N	Longitude 12° 15' W	
Macrohabitat Sub-Saharan savannah	Microhabitat Forest gallery	Method of Storage until Inoculated Liquid nitrogen, then deep freezer until inoculation
Footnotes		

Section III - Method of Isolation

Inoculation Date
8/28/1972

Animal (Details will be in Section 6)
nb mice

Route Inoculated Intracerebral	Reisolation Not tried
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Other Reasons
First virus of this type

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 4.2 dex	Control Titer 6.6 dex
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer
Other (formalin, radiation)		

Virion Morphology

Shape	Dimensions < 220 nm	
Mean nm	Range nm	
Measurement Method 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

Hemagglutination Antigen Source Erythrocytes (species used)
Yes **SMB ext. by sucrose-acetone** **Goose**

pH Range pH Optimum
5.7-6.8 **6.0 and 6.2**

Temperature Range Temperature Optimum
Room temperature

Remarks
Titer = 40

Serologic Methods Recommended
CF, NT

Footnotes
Titer = 40

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

CF test: homologous titer = 64/128.

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ArD 14701 antigen gave positive results with the following immune fluids: West Nile, Usutu and Dengue 3. Immune fluid to ARD 14701 gave negative results with all the anitgens.

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 +/- (g)
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	
Vero (CL)	SM 4		No CPE			No Plaques		
LLC-MK2 (CL)			No CPE			No Plaques		
PS (CL)			No CPE			No Plaques		
Ae. Albopictus (CL)			No CPE			No Plaques		
HEp-2 (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
Aedes minutus	2		Kedougou, Senegal
Aedes dalzieli	4		Kedougou, Senegal
Aedes tarsalis	5		Bozo/Bangui, Central African Republic
Human sera	1		Bangui, Central African Republic
Human sera		3/51 NT	Kedougou, Senegal (2)
Human sera		33/138 NT	Kedougou, Senegal (2)

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 log ₁₀ /ml
mice (nb)	SM 4	ic 0.02	Death	5	6.2
"" (nb)		ip 0.03	Death	7-10	
"" (nb)		sc			
"" (wn)		ic 0.03	Antibodies		
"" (wn)		ip 0.10	Antibodies		

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log ₁₀ /ml (b)		Incubation period (c)		Transmission by bite (d)		Assay of arthropod, log ₁₀ /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)

Senegal, Central African Republic

Suspected (Antibody only detected)

Section XIII - References

1. Insitut Pasteur Dakar Annual Report. 1975.
2. Robin, Y., et.al. 1978. Ann. Microbio. (Inst. Oasteur) 129A: 239-244.

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