

Virus Name: Somone		Abbreviation: SOMV
Status Possible Arbovirus	Select Agent No	SALS Level
SALS Basis		
Other Information		
Antigenic Group Somone		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation DAKArD 4499	Accession Number	Original Date Submitted 3/5/1986
Family Unclassified	Genus Unclassified	
Information From Yves Robin	Address Institut Pasteur, BP 304, Cayenne, French Guyana	
Information Footnote		

Section II - Original Source

Isolated By (name) Yves Robin and Michel Cornet	Isolated at Institute Bandia Forest, Senegal	
Host Genus Amblyomma variegatum	Species	Host Age/Stage Nymphs
Sex Not Answered		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method Removed from Xerus erythropus (ground squirrel)	Collection Date 2/1/1968	
Place Collected (Minimum of City, State, Country) Bandia, Senegal		
Latitude 14° 35' N	Longitude 17° 1' W	
Macrohabitat Dry savannah; at sea level; tropical, one rainy season (July-October)	Microhabitat	Method of Storage until Inoculated REVCO at -70dC
Footnotes		

Section III - Method of Isolation

Inoculation Date

8/2/1968

Animal (Details will be in Section 6)

nb mice

Route Inoculated

Intracerebral

Reisolation

Not tried

Other Reasons

Virus different from those existing in laboratroy

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
<1.5 dex

Control Titer
5.7 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 filtration

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 No	Antigen Source SMB ext. by sucrose-acetone	Erythrocytes (species used) Goose
pH Range 5.7-6.6	pH Optimum	
Temperature Range	Temperature Optimum	
Remarks		
Serologic Methods Recommended CF		
Footnotes		

CF test: homologous titer = 32/4

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DAKArD 4499 did not react with any virus except MRSMP 31 (MTWAPA) [1]

Cross-CF and neutralization test with MRSMP 31 (MTWAPA) gave the following results:

ANTISERA	CF TEST	
	Somone	Mtwapa
Somone (ArD 4499)	32/4 *	4/2
Mtwapa (MRSMP 31)	16/4	>256/16
* antiserum/antigen titer		

ANTISERA	NEUTRALIZATION	
	Somone	Mtwapa
Somone (ArD 4499)	≥ 2.1 **	2.2
Mtwapa (MRSMP 31)	2.0	≥ 3.0
** LNI in dex		

Results indicate that strain ArD 4499 represents a new virus related to MRSMP 31 (MTWAPA).

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					
LLC-MK2 (CL)			No CPE					
PS (CL)			No CPE			No Plaques		
BHK-21 (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
Amblyomma variegatum	1		Bandia, Senegal (3)
Boophilus decoloratus	1		Kano Nigeria (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 log10/ml
mice (nb)	SM 4	ic 0.02	Death	4-5	5.7
"" (nb)		ip 0.03	Nonpathogenic		
"" (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 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) Senegal, Nigeria
Suspected (Antibody only detected)

Section XIII - References

1. East African Virus Research Institute Annual Report, 1970. P.31. 2. University of Ibadan. Arbovirus Research Project Annual Report. 1970. P.68. 3. Institut Pasteur de Dakar Annual Report. 1964/1968. P.74. 4. Institut Pasteur de Dakar Annual Report. Pp. 8-9.

Remarks

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