

Virus Name: Kismayo		Abbreviation: KISV
Status Possible Arbovirus	Select Agent No	SALS Level
SALS Basis		
Other Information		
Antigenic Group Bhanja		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation A3641	Accession Number	Original Date Submitted 7/28/1987
Family	Genus Bunyavirus-like	
Information From A. Butenko	Address Institute of Virology, Academy of Medical Sciences, Moscow, USSR	
Information Footnote		

Section II - Original Source

Isolated By (name) D. Lvov, et.al.	Isolated at Institute Moscow, USSR	
Host Genus 2 Rhipicephalus pulchellus ticks*	Species	Host Age/Stage
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method	Collection Date 2/19/1974	
Place Collected (Minimum of City, State, Country) Kismayo, Somalia		
Latitude 0° 23' S	Longitude 42° 30' E	
Macrohabitat	Microhabitat *Removed from a jackal	Method of Storage until Inoculated
Footnotes		

Section III - Method of Isolation

Inoculation Date

4/1/1974

Animal (Details will be in Section 6)

nb mice

Route Inoculated

Intracerebral

Reisolation

Yes

Other Reasons

A new virus, different from all other viruses in the 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)	After Treatment Titer 6.4 dex loss	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer 6.8 dex loss	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer 3.6 dex loss	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 5.5-6.4	pH Optimum 5.7-6.0	
Temperature Range	Temperature Optimum 22dC	
Remarks		
Serologic Methods Recommended CF, NT, agar gel diffusion precipitation test		
Footnotes		

By CF, Kismayo virus antigen did not react with the following immune ascitic fluids: Group A, Group B, Group Bunyamwera, Getah, Sinbis, Powassan, West Nile, Batai, Cache Valley, Ilesha, Maguari, Tahyna, Guaroa, Simbu, Turlock, Kaeng Khoi, CHF-Congo, Dera Ghazi Khan, Hughes, Soldado, Dugbe, Bandia, Qalyub, Uukuniemi, Kaisodi, Lanjan, Silverwater, Upolu, Bakau, Lone Star, Tamdy, Colorado tick fever, Baku, Kemerovo, Wad Medani, Chobar Gorge, Sawgrass, Batken, Chim, Matucare, Nyamanini, Quarantill and Wanowrie.

Antigenically, Kismayo virus was found to be related by the HI test to Bhanja virus. No cross-reaction between these agents was demonstrated by CF, agar gel diffusion or NT [1] - [3].

Ascitic Fluids	HI TEST			
	Antigens			
	Hp9 (8 HAU)	IbAr 2709 (8 HAU)	Rh91 (4 HAU)	Ph92 (8 HAU)
Bhanja (Hp9)	320	160	160	80
Kismayo (Rh91)	20	20	320	160
Kismayo (Rh92)	20	20	640	320
CHF-Congo	0	0	0	0
Bunyamwera	0	0	0	0
IbAr 2709 = Bhanja				
HAU: hemagglutination units				
0 = <10				

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)	PISM 2				7-8		8.3 dex (3)	

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
Ticks *	1		Kismayo, Somalia; 1974
Rhipicephalus pulchellus **	2/673 (26 pools)		Dzhakhar town market, Somalia; 1974
<p>* Removed from domestic animals (species unstated)</p> <p>** Removed from camels</p>			

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 15	ic 0.02	Illness, death	3	9.7-10.2
"" (nb)		ip			
"" (nb)		sc			
"" (wn)		ic			
"" (wn)		ip			

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) Somalia
Suspected (Antibody only detected)

Section XIII - References

1. Butenko, A.M. et.al., 1979. Vop. Virusol. 6:661-664. 2. Hubalek, Z. and Holouzka, J. 1985. Arch. Virol. 84:175-180. 3. Karabatsos, N. Personal communication, 1985.
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Remarks

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