

Virus Name: Sokuluk		Abbreviation: SOKV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group B		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation LEIV-400K	Accession Number	Original Date Submitted 11/18/1984
Family Flaviviridae	Genus Flavivirus	
Information From D.K. Lvov and colleagues	Address Ivanovsky Inst. of Virology, Gamaleya St., 16, Moscow D-98, USSR	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) D.K. Lvov and colleagues	Isolated at Institute Moscow, USSR	
Host Genus Vespertilio pipistrellus (frosted bat)	Species	Host Age/Stage Adult
Sex Not Answered		
<u>Isolated From</u> <u>Isolation Details</u>		
Organs/Tissues	Brain, liver, spleen and kidney pool	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method Hand capture	Collection Date 5/8/1970	
Place Collected (Minimum of City, State, Country) Sokuluksk region, Kirghiz SSR		
Latitude 42° 30' N	Longitude 74° 30' E	
Macrohabitat	Microhabitat In the garret of an apartment house	Method of Storage until Inoculated -40dC
Footnotes		

Section III - Method of Isolation

Inoculation Date	
Animal (Details will be in Section 6) nb mice	
Route Inoculated Intracerebral	Reisolation Yes
Other Reasons	
Homologous Antibody Formation by <u>Source Animal</u>	
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)	
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<u>Stability of Infectivity (effects)</u>		
pH (infective range)		
Lipid Solvent (ether - % used to test)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer
Other (formalin, radiation)		
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<u>Virion Morphology</u>		
Shape	Dimensions	
Mean nm	Range nm	
Measurement Method	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry
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Morphogenesis

Site of Constituent Formation in Cell

Site of Virion Assembly

Site of Virion Accumulation

Inclusion Bodies

Other

Hemagglutination

Hemagglutination
Yes

Antigen Source
SMB ext. by sucrose-acetone

Erythrocytes (species used)
Goose

pH Range
6.2-7.0

pH Optimum
6.8

Temperature Range
22dC

Temperature Optimum

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

MIAF or Antigen/Viruses	Antigen/Viruses of Sokuluk			MIAF of Sokuluk	
	CF	HI	NT	CF	NT
Sokuluk	128		3.0	128	3.0
Tick-borne enc.	8/128	10/256	0/2.0	8/128	0/2.0
Powassan	16/128	20/128	0.7/4.2	8/128	0.5/4.25
Langat	8/64		0/4.0	8/64	0/4.0
Kyasanur Forest Dis.	8/			8/256	0.2/4.2
Jap. enc.	8/256	10/256	0.7/4.2	8/512	0/2.2
West Nile	8/128	10/256	0.3/3.5	8/128	
Saint Louis enc.	8/512		0/2.2	8/128	0.5/3.5
Tyuleniy	8/128	20/256		8/	
Uganda S	8/64				
Kokobera	8/				
Modoc	8/				
Ent. bat	8/				
Bukalasa bat	8/				
Dakar bat	8/				
Group B	8	10			

CF, HI, NT: homologous titer/heterologous titer; NT: = results given as LNI in dex.

Negative results were also obtained with MIAF to the following group B viruses: Murray Valley enc., Ilheus, Banzi, yellow fever, dengue 1, dengue 2, Lika, Potuskum, Stratford, Cowbone Ridge, Spondweni.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood and viscera (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice

Cell system (a)	Virus passage history (b)	Evidence of Infection							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		

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
Vespertilio pipistrellus	1/107		Sokuluksk region, Kirghis SSR, USSR
Man		4/579 CF	Kirghis, SSR, USSR
Cows		0/150 CF	
Sheep		0/200 CF	

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)		ic 0.01	Death	3-4	7.0
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic	Death	4-5	7.0
Mice (wn)		ip			
hamsters (ad)		ic	None		
		ip	None		

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)

USSR

Suspected (Antibody only detected)

Section XIII - References

1. Lvov, D.K., Tsyarkin, Yu.M., et al. 1973. Archiv. ges. Virusforsch. 41:170-174.

Remarks