Virus Name: Baku	Abbreviation: BAKUV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Kemerovo

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
LEIV-46A

Accession Number

Original Date Submitted
11/27/1984

Family
Reoviridae

Genus
Orbivirus

Information From
D.K. Lvov

Address
Ivanovsky Inst. of Virology, Gamaleya St. 16, Moskos, D-98, USSR

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
D.K. Lvov, et al.

Isolated at Institute
Azerbaijan

Host Genus
Ornithodoros capensis

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Substrates collected from birds' nesting grounds

Collection Date
4/27/1970

Place Collected (Minimum of City, State, Country)
Glinyanyi, Caspian Sea, USSR

Latitude
39° 50' N

Longitude
49° 30' W

Macrohabitat
Barren semidesert vegetation

Microhabitat
Nesting ground of birds, Larus argentatus

Method of Storage until Inoculated
Alive at +4dC in refrigerator

Footnotes

Section III - Method of Isolation

Inoculation Date
5/14/1970

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Yes

Other Reasons
No work with other arboviruses was conducted 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	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions **<220 nm**	
Mean nm	Range nm	
Measurement Method **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	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by sucrose-acetone**	**Goose**
pH Range **5.5-7.0**	pH Optimum	
Temperature Range **4C, 22C**	Temperature Optimum	
Remarks		
Serologic Methods Recommended **CF, NT**		
Footnotes		

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

Baku antigen in the CF test did not react with polyvalent antisera to arboviruses group A, B, Quaranfil, Bandia, Simbu, Bunyamwera, Hughes, California and Uukuniemi.It did not react with antisera to arboviruses Congo, Bhanja, Sakhalin.

CF Test		NT Test		
	Antigen Baku		Virus	
Immune Ascitic Fluids	Ht/Ho	Immune Ascitic Fluids	Baku	Chenuda
Baku	128	Baku	1200	47
Chenuda	64/256	Chenuda	67	1000
Punta Salinas	8/32			
Kemerovo	8/-			
Lipovnik	8/-			
Tribec	<8/-			
Wad Medani	<8/-			

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)	

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
Ornithodoros capensis	13/1,710 (156 pools)		Glinyanyi Isl., Caspian Sea, Azerbaijan, USSR
Larus argentatus (Nestling)		7/78 CF	Glinyanyi Isl., USSR

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 2-3	ic 0.01	Death	3-4	5.0-6.0
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic 0.2	Antibody production		
Mice (wn)		ip			
golden hamster(ad)	SMB 4	ic	None		
		ip	None		
chickens (24 hr)		sc 0.1	Viremia		

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)
USSR

Suspected (Antibody only detected)

Section XIII - References

1. Lvov, D.K., et al. 1971. Vopr. Virusol. 16(4):434-100%.
2. Gromashevski, V.L., et al. 1973. Acta Virol. 17:155-158.

Remarks