Virus Name: Sororoca		Abbreviation: SORV
Status **Possible Arbovirus**	Select Agent **No**	SALS Level **2**

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

Other Information

Antigenic Group
Bunyamwera

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
BeAr 32149

Accession Number

Original Date Submitted
2/27/1985

Family
Bunyaviridae

Genus
Bunyavirus

Information From
Belem Virus Lab.

Address
Belem Virus Laboratory, Instituto Evandro Chagas, Belem, Para, Brazil

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Belem Virus Laboratory

Isolated at Institute
Belem, Para, Brazil

Host Genus
Sabethini mosquitoes

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Collected from human bait

Collection Date
6/6/1961

Place Collected (Minimum of City, State, Country)
Belem-Brasilia Highway, km 94, Brazil

Latitude
3° S

Longitude
48° W

Macrohabitat
Virgin forest

Microhabitat
Canopy

Method of Storage until Inoculated
At -60dC

Footnotes

Section III - Method of Isolation

Inoculation Date
6/12/1961

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
No

Other Reasons

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) **1:1000**	After Treatment Titer **<2.5 dex**	Control Titer **5.8 dex**

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	Antigen Source	Erythrocytes (species used)
Yes	**SMB ext. by sucrose-acetone + sonication and trypsin (1)**	**Goose**
pH Range	pH Optimum	
6.0-7.0	**5.8**	
Temperature Range	Temperature Optimum	
	Room temperature	

Remarks

Serologic Methods Recommended
NT, CF

Footnotes

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

CF Testing

Hyperimmune Mouse Sera

Antigens	SOR	Taiassui	MAG	Kairi	Guaroa	BUN	GER	Batai	ILE
Sororoca	512/>1024	8/>64	0/0	0/0	4/64	0/0	0/0	16/512	0/0
Taiassui	0/0	64/>64							
Maguari	0/0		8/>64						
Kairi	0/0			16/64					
Guaroa	4/>64				64/>64				
Bunyamwera	16/>128					32/>128			
Germiston	0/0						32/64		
Batai	32/256							512/1024	
Ilesha	16/256								256/512

CF results: serum titer/antigen titer

SOR = Sororoca; MAG = Maguari; BUN = Bunyamwera; GER = Germiston; ILE = Ilesha

NT Testing

Virus	Hyperimmune Mouse Sera						
	Sororoca	Maguari	Kairi	Guaroa	Tucunduba	Taiassui	BeAr 8933
Sororoca	2.1	0	0.8	1.0	0.6	1.3	1.0
Maguari	0	3.2					
Kairi	0		3.0				
Guaroa	0			3.4			
Tucunduba	0.6				2.2		
Taiassui	1.1					2.0	
BeAr 8933	0						2.3

NT: LNI in baby mice ic, given as dex

Sororoca serum did not inhibit Bunyamwera, Maguari, Batai, Germiston, Ilesha, or Guaroa in HI.

SIRACA has antigenically classified Sororoca virus as a distinct virus type and placed it in the Wyeomyia complex, one of four complexes comprising the BUN serogroup [6] .

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (M)(LV), CNS (M)(LV), nasopharyngeal (M); virus recovered from many organs of nat. and exp. infected viremic vertebrates

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn and wn mice, chick embryos, hamsters, rabbits, guinea pigs; duck and chick embryo, Vero, BHK-21 representative of systems succesfully used.

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)	
HeLa (CL)			CPE	4.5* (3)					
BHK-21 (CL)	MB 5	2	4+	7.8 (4)					
Vero (CL)	P-14				5	1 mm	5.6* (5)		
LLC-MK2 (CL)					4	4 mm	8.0 (5)		

* Expressed in dex

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
Sabethini mosquitoes	6		Para, Brazil (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)	P-3	ic 0.02	Death	4.8	6.5
Mice (nb)		ip 0.02	Death	7.2	
Mice (nb)		sc			
Mice (wn)		ic 0.03	Antibody, deaths in +- 50%		
Mice (wn)		ip 0.03	Antibody		
hamsters (ad)		ip, sc	Nonlethal		

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)
SM: encephalitis only (L.B. Dias)

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)
Para, Brazil

Suspected (Antibody only detected)

Section XIII - References

1. Ardoin, P., et al. 1969. Am. J. Trop. Med. Hyg. 18:592-598.
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4. Karabatsos, N. and Buckley, S.M. 1967. Am. J. Trop. Med. Hyg. 16:99-105.
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Remarks