

Virus Name: Xiburema		Abbreviation: XIBV
Status Possible Arbovirus	Select Agent No	SALS Level 3
SALS Basis Insufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.		
Other Information		
Antigenic Group Ungrouped		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation BeAr 362159	Accession Number	Original Date Submitted 4/13/1985
Family Rhabdoviridae	Genus Not listed	
Information From F.P. Pinheiro and Amelia P.A.T. Rosa	Address Instituto Evandro Chagas, FSESP, Ministry of Health, CP-621, Belem, Para, Brazil	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) Gilberta Bensabath	Isolated at Institute Instituto Evandro Chagas	
Host Genus Sabethes (Sbn) intermedius, pool of 40	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod Depleted	
Time Held Alive before Inoculation 2-3 hours		
Collection Method Human bait	Collection Date 11/18/1977	
Place Collected (Minimum of City, State, Country) Xiburema, Sena Madureira, Acre, Brazil		
Latitude 9° 3' S	Longitude 68° 39' W	
Macrohabitat Tropical rain forest	Microhabitat Ground level	Method of Storage until Inoculated Liquid nitrogen and freezer (-60dC)
Footnotes		

Section III - Method of Isolation

Inoculation Date
7/23/1980

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation

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 1.5 dex	Control Titer 1.6 dex
Other (formalin, radiation)		

Virion Morphology

Shape Rhabdovirus morphology	Dimensions	
Mean nm	Range nm	
Measurement Method EM	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

Hemagglutination No	Antigen Source SMB ext. by sucrose-acetone + sonication	Erythrocytes (species used) Goose
pH Range	pH Optimum	
Temperature Range RT, 37dC	Temperature Optimum	
Remarks		
Serologic Methods Recommended CF, NT		
Footnotes		

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

This strain, when tested in Brazil, did not react by CF with the following immune fluids: Groups A, B, C, Guama, Capim, Bunyamwera, Phlebotomus fever, as well as Mirim, Oropouche, Utinga, Melao, Serra do Navio, Belem, Jurona, Tacaiuma, Piry, Cocal, Timbo, Chaco, Turlock, group Changuinola, Aruac, Trinita, Pacora, Lukuni, mouse encephalomyelitis, Pacui, Acara, rabies, EMC, mouse hepatitis virus, BeAr 263191, Jacareacanga, BeAn 306770, Sena Madureira, Santarem, Para, Cuiaba, Mojui dos Campos, Itupiranga, Mapuera, and herpes simplex virus.

In addition, the antigen did not react by CF with NIH grouping fluids for groups A, B, C, Guama, Capim, California, Bunyamwera, Phlebotomus fever, Tacaribe, Kemerovo, VSV, Simbu, polyvalents 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, Bwamba, Congo, Patois, Quarantil, Palyam, Anopheles A, and rabies/LCM.

At YARU, it was found to be unrelated by CF to the following viruses: Enseada, Pichinde, Aguacate, Cacao, Caimito, Chilibre, Connecticut, Frijoles, La Joya, New Minto, Rio Grande, Turuna, group Sakhalin, group Australia, Nariva, AG80-381, AG80-924, AG80-504, AG80-226, Boteke, Burg el Arab, Gomoka, Lebombo, Matariya, Malakal, Minnal, Nkolbisson, Okola, Wanowrie, Witwatersrand, Zinga, Hart Park, Mossuril, Charleville, Joinjakaka, Mt. Elgon bat, Navarro, Isfahan, DakA802, rabies, Lagos bat, Duvenhage, Chandipura, Sawgrass, Barur, Obodhiang, Bangoran, Flanders, Gray Lodge, Kamese, Kern Canyon, Keuraliba, kotonkan, TB4-222, Bahia Grande, 79V5816, 76V23524, Inini, Guaratuba, Arkonam, Puchong, Tataguine, and Yogue.

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							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
Sabethes (Sbn) intermedius	1/10,750		Sena Madureira, Acre State, Brazil
Other Sabethes	0/10,441		
Other Culicidae	0/145,792		
Phlebotomines (female)	0/796		
Phlebotomines (male)	0/799		

Xiburema virus was not isolated from blood or viscera of the following animals captured in Sena Madureira area, 1976-1978: 252 marsupials, 945 rodents, 17 primates, 1 edentate, 63 bats, 173 reptiles, 617 wild birds, and 680 domestic birds.

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 3	ic 0.02	Death	4.8	
mice (nb)		ip 0.02	Irregular deaths		
mice (nb)		sc			
mice (wn)		ic 0.02	Survived		
mice (wn)		ip 0.02	Survived, antibodies		
mice (nb)	SMB 5	ic 0.02	Death		8.0

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) Brazil
Suspected (Antibody only detected)

Remarks

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