

Virus Name: Mapuera		Abbreviation: MPRV
Status <b>Probably not Arbovirus</b>	Select Agent <b>No</b>	SALS Level <b>3</b>
SALS Basis <b>Isufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.</b>		
Other Information		
Antigenic Group <b>ungrouped</b>		

#### SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation <b>BeAn 370284</b>	Accession Number	Original Date Submitted <b>9/26/1984</b>
Family <b>unclassified</b>	Genus	
Information From <b>F.P. Pinheiro and Amelia P.A.T. Rosa</b>	Address <b>Instituto Evandro Chagas, FSESP, Ministry of Health, CP-621, Belem, Para, Brazil</b>	
Information Footnote <b>Reviewed by editor</b>		

#### Section II - Original Source

Section 1 - Original Source		
Isolated By (name) <b>F. Pinheiro and Amelia P.A.T. Rosa</b>	Isolated at Institute <b>Instituto Evandro Chagas</b>	
Host Genus <b>Sturnira lilium (bat)</b>	Species	Host Age/Stage
Sex <b>Not Answered</b>		
<u>Isolated From</u>	<u>Isolation Details</u>	
<b>Other Fluids</b>	<b>Salivary glands</b>	
Signs and Symptoms of Illness <b>no</b>	Arthropod	
Time Held Alive before Inoculation		
Collection Method <b>mist net</b>	Collection Date <b>7/18/1979</b>	
Place Collected (Minimum of City, State, Country) <b>Cachoeira Porteira-km. 4, Oriximina, Para</b>		
Latitude <b>1° 2' S</b>	Longitude <b>57° 6' W</b>	
Macrohabitat <b>tropical rain forest</b>	Microhabitat <b>ground level</b>	Method of Storage until Inoculated <b>liquid nitrogen and freezer (-60dC)</b>
Footnotes		

### Section III - Method of Isolation

Inoculation Date  
**9/21/1979**

Animal (Details will be in Section 6)  
**nb mice**

Route Inoculated  
**intracerebral**

Reisolation  
**No**

Other Reasons

Homologous Antibody Formation by Source Animal  
**Not tested**

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) <b>1:1000</b>	After Treatment Titer <b>1.3 dex</b>	Control Titer <b>2.2 dex</b>
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

Hemagglutination <b>No</b>	Antigen Source <b>SMB ext. by sucrose-acetone + sonication</b>	Erythrocytes (species used) <b>goose</b>
pH Range <b>5.8-7.0</b>	pH Optimum	
Temperature Range <b>room, 37dC</b>	Temperature Optimum	
Remarks		
Serologic Methods Recommended <b>CF and NT</b>		
Footnotes		

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

CF tests (Belem): No reactions were observed between a CF antigen for virus strain BeAn 370284 (homologous titer 128/16+) and the following grouping sera: A, B, C, Guama, Capim, Bunyamwera, and Phlebotomus, as well as the specific ascitic fluids to Mirim, Oropouche, Utinga, Melao, Serra do Navio, Belem, Jurona, Tacaiuma, Piry, Cocal, Timbo, Chaco, Turlock, group Chaguinola, Amapari, Flexal, Kwatta, Mosqueiro, Marco, Tembe, Cotia-like, Agua Preta, Ieri, Araguari, Inhangapi, Aruac, Trinita, Pacora, Lukuni, mouse encephalomyelitis, Pacui, Acara, rabies, EMC, mouse hepatitis virus, BeAr 263191, Jacareacanga, Sena Madureira, BeAn 306770, Santarem, Para, Cuiaba, Mojui dos Campos, Itupiranga, Xiburema, and herpes simplex viruses. In addition, no reaction by CF was found with the following NIH immune grouping fluids: 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, Quarafil, Palyam, Anopheles A, and rabies/LCM.

At YARU, no relationship was detected by CF with immune fluids to the following viruses: Hart Park, Mossuril, group Australia, Charleville, Joinjakaka, La Joya, Mt. Elgon bat, Navarro, New Minto, Isfahan, DakA802, rabies, Lagos bat, Duvenhage, kotokan, Chandipura, Sawgrass, Barur, Obodhiang, Bangoran, Flanders, Gary Lodge, Kamese, Kern Canyon, Keuraliba, Boteke, Burg El Arab, Gomoka, Lebombo, Matariya, Malakal, Minnal, Nkolbisson, Okola, Wanowrie, Witwatersrand, Zinga, Pichinde, Aguacate, Cacao, Caimito, Chilibre, Connecticut, Frijoles, Rio Grande, group Sakhalin, Nariva, Barranqueras, Para (AG80-934), Resistencia, R32990, Antequera, Enseada, Guaratuba, and Inini. In addition, BeAn 370284 immune serum failed to react with the following antigens by CF: Arkonam, Puchong, Tataguine, and Yogue.

## Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)  
blood (LV), pool of heart, spleen, liver, kidney (LV)

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)	SMB 3	1-2	4+	6.5**						
LLC-MK2 (CL)		1-2	4+	$\geq 3.5$						
HEp-2 (CL)		1-2	4+	$\geq 3.5$						
Vero (CL)	SMB 2	4	4+		4-6	1 mm	3.6**			
** Expressed in dex										



Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Bats (salivary glands)	1/260	0/22 CF	C. Porteira, Oriximina, Para, Brazil
Bats	0/239	0/41 CF	P. Trombetas, Oriximina, Para, Brazil
Marsupials	0/215		C. Porteira, Oriximina, Para, Brazil; 1976-79
Rodents	0/377		
Primates	0/206		
Carnivores	0/13		
Ungulates	0/37		
Edentates	0/7		
Reptiles	0/47		
Wild birds	0/2,812		
Mosquitoes (females)	0/56,523		
Culex spp. Mosquitoes (males) 0/8,693			
Phlebotomines (females)	0/2,813		
Phlebotomines (males)	0/202		

### 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	4.0	
mice (nb)		ip 0.02	death		
mice (nb)		sc			
mice (wn)		ic 0.03	survived		
mice (wn)		ip 0.03	survived		
mice (nb)	SMB 4	ic 0.02	death		5.4

### 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)
Suspected (Antibody only detected)

**Remarks**

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