Virus Name: Mapuera	Abbreviation: MPRV

Status
Probably not Arbovirus

Select Agent
No

SALS Level
3

SALS Basis
Isufficient 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
BeAn 370284

Accession Number

Original Date Submitted
9/26/1984

Family
unclassified

Genus

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)
F. Pinheiro and Amelia P.A.T. Rosa

Isolated at Institute
Instituto Evandro Chagas

Host Genus
Sturnira lilium (bat)

Species

Host Age/Stage

Sex
Not Answered

Isolated From	Isolation Details
Other Fluids	**Salivary glands**

Signs and Symptoms of Illness
no

Arthropod

Time Held Alive before Inoculation

Collection Method
mist net

Collection Date
7/18/1979

Place Collected (Minimum of City, State, Country)
Cachoeira Porteira-km. 4, Oriximina, Para

Latitude
1° 2' S

Longitude
57° 6' 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
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) **1:1000**	After Treatment Titer **1.3 dex**	Control Titer **2.2 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)
No	**SMB ext. by sucrose-acetone + sonication**	**goose**
pH Range **5.8-7.0**	pH Optimum	
Temperature Range **room, 37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF and NT

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 (hmologous 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, Triniti, 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, Quaranfil, 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	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
Vero (CL)	SMB 3	1-2	4+	6.5**					
LLC-MK2 (CL)		1-2	4+	>=3.5					
HEp-2 (CL)		1-2	4+	>=3.5					
Vero (CL)	SMB 2	4	4+		4-6	1 mm	3.6**		

** 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
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)		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)

Suspected (Antibody only detected)

Remarks