

Virus Name: Guajara	Abbreviation: GJAV	
Status <b>Arbovirus</b>	Select Agent No	SALS Level 2
SALS Basis <b>Results of SALS surveys and information from the Catalogue.</b>		
Other Information		
Antigenic Group <b>Capim</b>		

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

Prototype Strain Number / Designation <b>BeAn 10615</b>	Accession Number	Original Date Submitted 1/27/1985
Family <b>Bunyaviridae</b>	Genus <b>Bunyavirus</b>	
Information From <b>Belem Virus Lab</b>	Address <b>Belem Virus Laboratory, Instituto Evandro Chagas, Belem, Para, Brazil</b>	
Information Footnote <b>Reviewed by editor</b>		

#### Section II - Original Source

Isolated By (name) <b>Belem Virus Laboratory</b>	Isolated at Institute <b>Belem, Para, Brazil</b>	
Host Genus <b>Swiss mouse, sentinel</b>	Species	Host Age/Stage
Sex <b>Female</b>		
<u>Isolated From</u> <u>Isolation Details</u>		
<b>Whole Blood</b>		
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method <b>Tail bleeding</b>	Collection Date <b>3/18/1959</b>	
Place Collected (Minimum of City, State, Country) <b>Instituto Agronomico do Norte Forest, Brazil</b>		
Latitude <b>2° S</b>	Longitude <b>48° W</b>	
Macrohabitat <b>Old secondary growth forest</b>	Microhabitat <b>Near ground under hood</b>	Method of Storage until Inoculated
Footnotes		

### Section III - Method of Isolation

Inoculation Date  
3/20/1959

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

Route Inoculated  
**Intracerebral**

Reisolation  
**Not tried**

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  
**2.5 dex**      Control Titer  
**5.5 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 Inclusion Bodies	Site of Virion Assembly Other	Site of Virion Accumulation
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## Hemagglutination

Hemagglutination <b>Yes</b>	Antigen Source <b>SMB ext. by sucrose-acetone</b>	Erythrocytes (species used) <b>Goose</b>
pH Range <b>6.0-6.2</b>	pH Optimum <b>6.0</b>	
Temperature Range	Temperature Optimum <b>27dC</b>	
Remarks <b>Sonication improved titer of Pan MARU 8179 strain (1).</b>		
Serologic Methods Recommended <b>CF, HI, NT</b>		
Footnotes <b>Sonication improved titer of Pan MARU 8179 strain (1).</b>		

Immune Sera	Antigen of Registered Virus			Antigen	Immune Serum of Registered Virus			CF Ht/Ho	Ind.	NT Ht/Ho
	CF Ht/Ho	Ind.	NT Ht/Ho		HI Ht/Ho	Ind.	CF Ht/Ho			
Guama	0/256	0	0/3.9	Guama	10/ND		0/128	0	0.9/2.3	
Catu	0/256	0	0/3.1	Catu	0/ND		0/128	0	0.8/2.3	
Moju	0/64	0	0.8/3.0	Moju	10/ND		0/128	0	0/2.3	
An 20525	0/256	0	0/3.0	An 20525	0/ND		0/128	0	0/2.3	
Bimiti	0/32	0								
Capim	8/256	1/32	0/2.2	Capim	0/ND		16/128	1/8	0/2.3	
An 20076	64/256	1/4	0/2.0	An 20076	0/ND		32/128	1/4	0/2.3	
Mirim	0/128	0		Mirim	0/ND		0/128	0		

All sera are hyperimmune mouse; NT=LNI in dex.

Bimiti serum homologous testing done by the Rockefeller Foundation Virus Laboratories, New York.

SIRACA has antigenically classified Guajara virus as a distinct virus type, and has placed it in the Guajara complex, one of five complexes comprising the Capim serogroup. There is an unregistered virus which represents a variety of Guajara virus [7].

## Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)  
Blood (LV)Lab Methods of Virus Recovery (ALL ISOLATIONS)  
Newborn mice

Cell system (a)	Virus passage history (b)	Evidence of Infection						Growth Without CPE	
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		
Mouse embryo (PC)	P-8				15	Plaques	>6.3* (3)		
GMK (CL)			CPE (3)						
Vero (CL)	Prototype, P-4				9	1 mm	6.2 (4)		
LLC-MK2 (CL)					10	1 mm	6.5 (4)		

\* 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
Sentinel mouse	62/16,315		Para and Amapa, Brazil (2)
Sentinel mouse	1		Panama
<i>Proechimys guyannensis</i>	1	18/221 NT	Para, Brazil (2)
<i>Didelphis marsupialis</i>		1/78 NT	Para, Brazil
<i>Metachirus nudicaudatus</i>		1/7 NT	
<i>Marmosa</i> spp.		1/52 NT	
<i>Culex</i> spp.	8		Para, Brazil (2)
<i>Culex portesi</i>	1		Para, Brazil
<i>Limatus flavisetosus</i>	1		

No NT antibody detected in 26 *Caluromys philander*, 86 *Oryzomys capito* or 9 *Nectomys squamipes* in Para, Brazil.

**Section VIII - Susceptibility to Experimental Infection (include viremia)**

<b>Experimental host and age</b>	<b>Passage history and strain</b>	<b>Inoculation Route-Dose</b>	<b>Evidence of infection</b>	<b>AST (days)</b>	<b>Titer log10/ml</b>	
Mice (nb)		ic 0.02	Death	5.8	7.5	
Mice (nb)		ip 0.02	Death, viremia	7.5		
Mice (nb)		sc				
Mice (wn)		ic 0.03	Antibody			
Mice (wn)		ip 0.03	Antibody			

**Section IX - Experimental Arthropod Infection and Transmission**

<b>Arthropod species &amp; virus source(a)</b>	<b>Method of Infection log10/ml (b)</b>		<b>Incubation period (c)</b>		<b>Transmision by bite (d)</b>		<b>Assay of arthropod, log10/ml (e)</b>		
	<b>Feeding</b>	<b>Injected</b>	<b>Days</b>	<b>°C</b>	<b>Host</b>	<b>Ratio</b>	<b>Whole</b>	<b>Organ</b>	<b>System</b>
Aedes aegypti, Cx quinquefasciatus									
Culex spp.									

## Section X - Histopathology

Character of lesions (specify host)

**Encephalitis only (L.B. Dias)**

Inclusion Bodies

Intranuclear

Organs/Tissues Affected

Category of tropism

## Section XI - Human Disease

In Nature	Residual	Death
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Subclinical	Overt Disease
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Clinical Manifestations

Number of Cases	Category (i.e. febrile illness, etc.)
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## Section XII - Geographic Distribution

Known (Virus detected)

**Brazil; Panama**

Suspected (Antibody only detected)

## Section XIII - References

1. Ardoin, P., et al. 1969. Am. J. Trop. Med. Hyg. 18:592-598.
2. Woodall, J.P. 1967. Atas Simmpos. Biota Amazon. 6:31-63.
3. Pinheiro, F.P. Personal communication.
4. Stim, T.B. 1969. J. Gen. Virol. 5:329-338.
5. Whitman, L. Personal communication.
6. Belem Virus Laboratory. 1966. Unpublished data.
7. Calisher, C.H., et al. 1985. Intervirology. To be submitted.

## Remarks