Virus Name: Juan Diaz	Abbreviation: JDV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Capim

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
MARU 8563

Accession Number

Original Date Submitted
10/17/1984

Family
Bunyaviridae

Genus
Bunyavirus

Information From
Gustavo Justines

Address
Middle America Research Unit, Box 2011, Balboa Heights, Canal Zone

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
G. Justines (1)

Isolated at Institute
Juan Diaz, Panama, Republic of Panama

Host Genus
Laboratory white mouse, sentinel

Species

Host Age/Stage
Two-days old

Sex
Not Answered

Isolated From

Isolation Details

Signs and Symptoms of Illness
Convulsion and paralysis

Arthropod

Time Held Alive before Inoculation

Collection Method
Sentinel mice exposed 48 hours in the study area

Collection Date
9/12/1962

Place Collected (Minimum of City, State, Country)
Barriada La Concepcion in Juan Diaz, Panama

Latitude
9° 2' N

Longitude
79° 27' W

Macrohabitat
Open coastal lowland

Microhabitat
Seven feet above ground; grass and bush

Method of Storage until Inoculated

Footnotes

Section III - Method of Isolation

Inoculation Date
9/26/1962

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Yes

Other Reasons

Homologous Antibody Formation by Source Animal
Not tested

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical
RNA

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) **1:20**	After Treatment Titer **<1.0 dex**	Control Titer **4.3 dex**
Lipid Solvent (deoxycholate) **1:100**	After Treatment Titer **<1.0 dex**	Control Titer **4.3 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
Yes

Antigen Source
SMb ext. by sucrose-acetone + sonication

Erythrocytes (species used)
Goose

pH Range
5.8-6.2

pH Optimum
6.0

Temperature Range

Temperature Optimum
26dC

Remarks

Serologic Methods Recommended
CF, HI and NT

Footnotes

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

	Antigen of Juan Diaz Virus					Immune Serum of Juan Diaz Virus			
	CF		NT			CF		NT	
Immune Sera	Ht/Ho	Ratio	Ht/Ho	Ratio	Antigen	Ht/Ho	Ratio	Ht/Ho	Ratio
Moriche	64/64	1/1	0/1024	0	Moriche	256/256	1/1	0/1024	0
Bushbush	16/32	1/2	16/8192	1/512	Bushbush	32/32	1/1	4/8192	1/2048
Guajara	2/64	1/32	0/256	0	Guajara	0/128	0	0/256	0
Capim	0/64	0	0/2048	0	Capim	0/256	0	0/2048	0
Benfica	0/8	0	8/4096	1/512	Benfica	0/256	0	0/4096	0
Acara	0/512	0	0/1024	0	Acara	0/32	0	0/1024	0
Gamboa	0/64	0	0/1024	0	Gamboa	0/64	0	0/1024	0

NT: 90% plaque-reduction titers; 0=<4

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							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
Vero cells (CL)		2-4	CPE		4-6	Plaques	5.6*		

* 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
Sentinel mouse	1/1,372		Juan Diaz, Panama
Sentinel chick	0/10		
Bufo murinus	0/10		
Ameiva ameiva	0/41		
Didelphis and Philander	0/24		
Sigmodon hispidus	0/27		
Rattus sp.	0/77		
Phalacrocorax sp.	0/72		
Nyctassa violacea	0/14		
Columbigallina talpacoti	0/139		
Sporophila sp.	0/44		
Other wild birds sp.	0/74		

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)		ic 0.02	Death	5-6	7.0
Mice (nb)		ip 0.03	One-half died		
Mice (nb)		sc			
Mice (wn)		ic 0.03	No deaths		
Mice (wn)		ip 0.03	Antibody		

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)
Juan Diaz, Panama, R.P.

Suspected (Antibody only detected)

Section XIII - References

1. Subcommittee on Arthropod-borne Virus Information Exchange. 1970. Supplement to Catalogue of Arthropod-Borne Viruses of the World. Am. J. Trop. Med. and Hyg. 19(Suppl.):1149-50.

Remarks