Virus Name: Bimiti	Abbreviation: BIMV

Status
Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Guama

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
TRVL 8362

Accession Number

Original Date Submitted
1/24/1985

Family
Bunyaviridae

Genus
Bunyavirus

Information From
Trinidad Regional Virus Laboratory

Address
P.O. Box 164, Port of Spain, Trinidad

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
TRVL (1)

Isolated at Institute
at Port of Spain, Trinidad

Host Genus
Culex (Melanoconion) spissipes

Species

Host Age/Stage

Sex
Not Answered

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Human bait

Collection Date
7/4/1955

Place Collected (Minimum of City, State, Country)
St. Andrew County, Trinidad

Latitude
10° 38' N

Longitude
61° 3' W

Macrohabitat
Melajo Forest, Northeast Trinidad

Microhabitat
Evergreen seasonal forest; mosquitoes taken at ground level

Method of Storage until Inoculated
Held alive overnight at 4/C before sorting and grinding

Footnotes

Section III - Method of Isolation

Inoculation Date
7/4/1955

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
No

Other Reasons
No other strain present in laboratory prior to isolation of this virus.

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical
RNA, Single Strand

Pieces (number of genome segments) **3**	Infectivity **Yes (9)**	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)	After Treatment Titer **<2.6 dex**	Control Titer **6.2 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)
Yes	**SMB ext. by sucrose-acetone, and sonicated**	**Goose**
pH Range **5.8-6.2**	pH Optimum **5.8**	
Temperature Range **4dC, 22dC, 37dC**	Temperature Optimum **37dC**	

Remarks

Serologic Methods Recommended
CF and NT

Footnotes

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

Bimiti virus has been shown to fall into the Guama group [2] . For details on relation to other members of the group, see Reference [2] .
As far as is known it is not related to any other viruses except those belonging to the Guama group. For a list of those with which it has been compared and no relationship detected, see Reference [1] .
SIRACA has antigenically classified Bimiti virus as a distinct type in the Bimiti complex, one of five complexes comprising the Guama serogroup [10] .

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Pool of CNS, heart, liver, spleen, 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)	
Hamster kidney (PC)	MB 11		No CPE						
BHK-21 (CL)	TRVL 8362				4	1-3 mm	5.9** (7)		
Vero					5	2-3 mm	5.6 (7)		
MA-104					7	2-3 mm	5.6 (7)		

** 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
Man	0/2,500	1/60 NT	Trinidad
Alouatta (monkey)	0/26		
Cebus	0/79		
Donkey		1/14 NT	
Birds	0/2,300		
Sentinel mice	1		Surinam (6)
Sentinel mice	6/1,700 fam.		Bush Bush Forest, Trinidad

Sentinel mice	4		Belem, Brazil (4)
Heteromys anomalus	1/360		Bush Bush Forest, Trinidad
Oryzomys spp.	7/600		
Zygodontomys brevicauda	2/400		
Proechimys guyannensis (blood)	1		Belem, Brazil
Culex (Mel) portesi	16/5,000		Bush Bush Forest, Trinidad
Other mosquitoes	1/400,000		Melajo Forest, Trinidad
Culex portesi	1		Belem, Brazil (4)
Culex spp.	1		
Culex portesi	1		French Guiana (5)
Culex portesi	1		Surinam (6)
Culex taeniopus	1		French Guiana (11)
Culex spissipes	1		

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)	MB 16	ic 0.02	Illness, death	3-4	7.5
Mice (nb)	MB 15	ip 0.03	Illness, death	6-10	5.3
Mice (nb)		sc			
Mice (wn)	MB 4	ic 0.03	None		
Mice (wn)	MB 15	ip 0.2	None		
chick emb.(10 day)	MB 10	am.s.	None		
chick emb. (10 day)		al.c.	None		
chick emb. (7 day)		ys	Virus present after 16 passages		
Zygodontomys brevicauda	MB 3	sc	Viremia (8)		

Day-old chicks, guinea pigs, hamsters and a donkey apparently not susceptible to infection.

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)
Trinidad, Brazil, French Guiana, Surinam

Suspected (Antibody only detected)

Section XIII - References

1. Spence, L., et al. 1962. Am. J. Trop. Med. Hyg. 11:414-417.
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11. Rapport Annuel Institut Pasteur De La Guyane Francaise. 1975. p 22.

Remarks