

Virus Name: Restan		Abbreviation: RESV
Status Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group C		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation TRVL 51144	Accession Number	Original Date Submitted 12/24/1984
Family Bunyaviridae	Genus Bunyavirus	
Information From Trinidad Regional Virus Laboratory	Address P.O. Box 164, Port of Spain, Trinidad, W.I.	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) Trinidad Regional Virus Laboratory (1)	Isolated at Institute Port of Spain, Trinidad	
Host Genus Culex (Melanoconion) sp. No. 9, pool of 13	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method Double baited cage trap	Collection Date 5/23/1963	
Place Collected (Minimum of City, State, Country) Bushbush Forest		
Latitude 10° 24' N	Longitude 61° 3' W	
Macrohabitat Bushbush Forest, Nariva Swamp, eastern Trinidad	Microhabitat Semi-evergreen seasonal forest	Method of Storage until Inoculated Stored in Revco at -55dC until ground
Footnotes		

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Inclusion Bodies	Other	

Hemagglutination

Hemagglutination Yes	Antigen Source SM ext. twice with acetone	Erythrocytes (species used) Goose
pH Range	pH Optimum 6.2	
Temperature Range	Temperature Optimum 37dC	
Remarks		
Serologic Methods Recommended CF, HI, NT		
Footnotes		

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

Restan virus is a member of group C as shown by CF, HI and N tests.

Close to Murutucu and Marituba by HI, CF and N tests.

Close to Oriboca by CF test only.

Separable from Murutucu and Marituba only by HI test.

SIRACA considers Murutucu and Restan viruses to be subtypes of Marituba virus [3].

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (M)

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)	SM 2				2	2 mm	6.8 ^a (2)	
LLC-MK2 (CL)					4	4 mm	6.8 (2)	

^a 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
Culex (Mel) sp. No. 9	2/24,000		Bushbush Forest, Nariva Swamp, Trinidad
Man	1/3,380		Trinidad
Man	2/150	17/410 HI	Surinam
Man		11/500 HI,NT	Surinam (4)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log ₁₀ /ml
Mice (nb)		ic 0.02	Death	1-2	8.2
Mice (nb)		ip 0.02	Death	2-3	
Mice (nb)		sc			
Mice (wn)		ic 0.03	Death	3-4	
Mice (wn)		ip 0.03	Death	3-6	
hamsters (ad)		ic 0.05	Death	3-4	
hamsters		ip 0.10	Death	3-4	
guinea pigs (ad)		ic 0.05	Antibodies		
guinea pigs		ip 0.1	Antibodies		
<i>Oryzomys laticeps</i> (ad)		sc 0.20	Viremia 3 days		6.7
<i>Zygodontomys brevicauda</i> (ad)		sc 0.20	Viremia 4 days		6.7

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

Virus has been transmitted by Ae aegypti in the laboratory (1).

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Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies

Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature
Reported

Residual

Death

Subclinical

Overt Disease

Clinical Manifestations

Fever (R), headache (R), prostration (R), myalgia (R)

Number of Cases

Four

Category (i.e. febrile illness, etc.)

Febrile illness

Section XII - Geographic Distribution

Known (Virus detected)

Trinidad and Surinam

Suspected (Antibody only detected)

Section XIII - References

1. Jonkers, A.H., et al. 1967. Am. J. Trop. Med. Hyg. 16:74-78.
2. Stim, T.B. 1969. J. Gen. Virol. 5:329-338.
3. Calisher, C.H., et al. 1985. To be submitted.
4. Jonkers, A.H. 1968. Trop. Geo. Med. 20:251-256.

Remarks