

Virus Name: Ieri		Abbreviation: IERIV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group Ungrouped		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation TRVL 8762	Accession Number	Original Date Submitted 1/24/1985
Family Reoviridae	Genus Orbivirus	
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 Port of Spain, Trinidad	
Host Genus Psorophora (Jan) albipes, pool of 137 mosquitoes	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 Human bait	Collection Date 7/28/1955	
Place Collected (Minimum of City, State, Country) County St. Andrew, 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 4dC before sorting and grinding
Footnotes		

Section III - Method of Isolation

Inoculation Date
7/29/1955

Animal (Details will be in Section 6)
nb mice

Route Inoculated Intracerebral	Reisolation No
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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

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)	After Treatment Titer <2.5 dex	Control Titer 4.6 dex
Other (formalin, radiation)		

Virion Morphology

Shape Orbivirus-like virions (6)	Dimensions	
Mean nm	Range nm	
Measurement Method Electron microscopy (6)	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

Hemagglutination Antigen Source Erythrocytes (species used)
No **SMB ext. by acetone-ether; sucrose-
acetone** **Goose**

pH Range pH Optimum
6.0-7.0

Temperature Range Temperature Optimum
4dC, 22dC, and 37dC

Remarks

Serologic Methods Recommended
CF

Footnotes

An antigen prepared from Ieri virus failed to react in CF with the following mouse hyperimmune sera:

EEE	Spondweni	Chenuda
WEE	Zika	Anopheles A
Semliki	Makonde	Wad Medani
Chikungunya	Ntaya	Turlock
Sindbis	Oriboca	Bwamba
Ilheus	Marituba	Rift Valley fever
St. Louis	Apeu	Simbu
Dengue	Catu	Mengo
Yellow fever	Guama	Lukuni
Rio Bravo	Bimiti	Triniti
JBE	SF Naples	Nepuyo
West Nile	Tacaiuma	Tacaribe
RSSE	Quaranfil	GD VII

It was reported that a weak CF cross with Triniti and Aruac viruses had been observed [2], but this could not be confirmed at TRVL nor by Downs [3]. It is, therefore, for the present listed as an ungrouped virus.

Arkonam virus is related to IFA and CF with Ieri and Gomoka viruses and weakly cross-reacts with Great Island and Lipovnik viruses. Arkonam, Gomoka and Ieri viruses now form the Ieri antigenic group [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							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		
BHK-21 (CL)	TR 8762	6	4+	3.8* (5)					

* Expressed in dex

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Man	0/2,500		Trinidad
Cebus (monkey)	0/26		
Alouatta (monkey)	0/79		
Birds	0/2,300		
Sentinel mice	0/4,303		
Psorophora (Jan) albipes	1		Melajo Forest, Trinidad
Psorophora ferox	2		
Psorophora ferox	1		Amapa, Brazil (4)

Neutralization tests with this virus have not given satisfactory results to date.

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 10	ic 0.02	Illness, death		3.6
Mice (nb)		ip 0.03	None		
Mice (nb)		sc			
Mice (wn)		ic 0.03	None		
Mice (wn)		ip 0.2	None		
chick embryo (10 day)	SMB 12	am.s.	None		
chick embryo (10 day)		al.c.	None		
chick embryo (7 day)		ys	None		

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

Section X - Histopathology

Character of lesions (specify host) sm: encephalitis only (L.B. Dias)		
<u>Inclusion Bodies</u>	<u>Intranuclear</u>	
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 (4)
Suspected (Antibody only detected)

Section XIII - References

<ol style="list-style-type: none">1. Spence, L., et al. 1967. Proc. Soc. Exp. Biol. Med. 125:45-50.2. Spence, L., et al. 1964. Am. J. Trop. Med. Hyg. 13:114-117.3. Downs, W.G. Personal communication.4. Pinheiro, F.P. Personal communication. 1972.5. Karabatsos, N. and Buckley, S.M. 1967. Am. J. Trop. Med. and Hyg. 16:99-105.6. Harrison, A., et al. Personal communication. 1981.7. Zeller, H. et al. 1989. Ill. Arch. Virol. Submitted.

Remarks
