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

Isolated From

Isolation Details

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

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

Hemaggiutination	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by acetone-ether; sucrose-acetone**	**Goose**
pH Range **6.0-7.0**	pH Optimum	
Temperature Range	Temperature Optimum **4dC, 22dC, and 37dC**	
Remarks		
Serologic Methods Recommended **CF**		
Footnotes		

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

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							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
BHK-21 (CL)	TR 8762	6	4+	3.8* (5)					

* 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		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)		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)
sm: encephalitis only (L.B. Dias)

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 (4)

Suspected (Antibody only detected)

Section XIII - References

1. Spence, L., et al. 1967. Proc. Soc. Exp. Biol. Med. 125:45-50.
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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. III. Arch. Virol. Submitted.

Remarks