Virus Name: Oriboca		Abbreviation: ORIV
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	Accession Number	Original Date Submitted
BeAn 17		1/27/1985

Family	Genus
Bunyaviridae	**Bunyavirus**

Information From	Address
Robert E. Shope	**Yale Arbovirus Research Unit, New Haven, Connecticut**

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)	Isolated at Institute
Belem Virus Laboratory (1)	**Belem, Para, Brazil**

Host Genus	Species	Host Age/Stage
Cebus apella, sentinel		**Adult**

Sex
Not Answered

Isolated From	Isolation Details
Serum/Plasma	

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method	Collection Date
Femoral venipuncture	**12/30/1954**

Place Collected (Minimum of City, State, Country)
Oriboca Forest, Brazil

Latitude	Longitude
2° S	**48° W**

Macrohabitat	Microhabitat	Method of Storage until Inoculated
Virgin forest, newly opened road near stream	**Cage, 4 meters from ground**	**Not stored**

Footnotes

Section III - Method of Isolation

Inoculation Date
12/30/1954

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation

Other Reasons

Homologous Antibody Formation by Source Animal
Yes

Test(s) Used
NT

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 **Sensitive (5)**	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer **Sensitive (5)**	Control Titer

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, liver; serum; hamster serum (11) ext. by sucrose-acetone; acetone**	**Goose**
pH Range	pH Optimum	
5.7-6.4	**6.0**	
Temperature Range	Temperature Optimum	
	27dC	

Remarks
Sonication improves titer (12).

Serologic Methods Recommended
CF, HI, NT

Footnotes
Sonication improves titer (12).

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

Group C virus, more closely related by HI and NT to Itaqui; and by CF to Murutucu [2] , [3] , [4] .

SIRACA has antigenically classified Oriboca virus as a distinct virus type and placed it in the Oriboca complex, one of four complexes comprising group C. Itaqui virus has been designated as a subtype of Oriboca virus [24] .

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (M)(LV), pooled liver and spleen (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice and monkey kidney cell culture (1)

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)	
HeLa (CL), HEp-2 (CL)			CPE (7)						
Det-6 (CL), human embryo intestine (CL)			CPE (7)						
Rhesus monkey kidney (PC)						Plaques (8)			
BHK-21 (CL)	BeAn 17, TRVL 58436				4	2-3 mm	4.8-6.3*(9)		
Vero (CL)					6	0.5-2.0mm	7.3-8.9(9)		
GMK (CL)	BeAn 17					Plaques	>5.5(13)		

* 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	12	38/1,362 HI	Para and Amazonas, Brazil
Man	1	8/500 HI	Surinam (14, 25)
Sentinel Cebus	20		Para, Brazil
Sentinel mouse	122/16,315		
Sentinel mouse	1		Bush Bush, Trinidad (15)
Didelphis marsupialis	2		Para, Brazil
Proechimys guyannensis	1		Turure, Trinidad (16)
Proechimys guyannensis	6		Para, Brazil
Oryzomys capito	2		

(Most of the above isolations were made from blood)

Mosquitoes: Culex portesi 8 Belem, 18 Trinidad (16,17), 19 French Guiana (18); other Culex 10 Belem, 4 French Guiana; also from Sabethini 2; from 3 spp. Aedes; 3 spp. Mansonia; and Psorophora ferox, Belem; Ae taeniorhynchus 1, French Guiana (18).

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	1.0	8.0
Mice (nb)		ip 0.02	Viremia, death	1.0	8.3
Mice (nb)		sc			
Mice (wn)		ic 0.03	Viremia, death	2.0	8.6
Mice (wn)		ip 0.03	Death	2.5	8.2
hamsters (ad)		ic,sc	Death (11)	3.0	
rhesus monkey (ad)		sc	Viremia (19)		
Proechimys (ad)	BeAn 17	ip	Viremia, antibody		
Oryzomys laticeps (ad)	TRVL 47827	sc	Viremia (16,23)		
Zygodontomys (ad)		sc	Viremia (16,23)		
chicks		iv	Viremia (10)		

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
Culex portesi naturally infected transmitted to mice (21)									
Ae aegypti fed on viremic mice transmitted to mice after 13 days (10)									
Ae quadrimaculatus: Following parenteral inoculation, virus underwent 5 serial salivary gland passages (10)									
Cx quinquefasciatus: Parenteral inoculaton, propagation failed after three serial passages (10).									

Section X - Histopathology

Character of lesions (specify host)
ad, nb mice; ic and ip: brain - neuronal hydropic degeneration, chromotolysis, perivascular infiltraion. Liver -hepatocellular hyaline degeneration, necrosis with centrolobular sparing. Councilman bodies noted (6).

Inclusion Bodies
Lower Vertabrates

Intranuclear

Organs/Tissues Affected
Brain (LV), liver (LV)

Category of tropism
Neurotropic, viscerotropic

Section XI - Human Disease

In Nature
Reported

Residual

Death

Subclinical

Overt Disease
Reported

Clinical Manifestations
Fever (S), headache (S), prostration (R), conjunctival inflammation (R), myalgia (R), arthralgia (R)

Number of Cases
Fourteen

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

Section XII - Geographic Distribution

Known (Virus detected)
Brazil; Surinam; French Guiana; Trinidad

Suspected (Antibody only detected)

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Remarks