Virus Name: Aura		Abbreviation: AURAV
Status **Possible Arbovirus**	Select Agent **No**	SALS Level **2**

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

Other Information

Antigenic Group
A

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
BeAr 10315

Accession Number

Original Date Submitted
1/27/1985

Family
Togaviridae

Genus
Alphavirus

Information From
Robert E. Shope

Address
Yale Arbovirus Research Unit, New Haven, Connecticut

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Belem Virus Laboratory (1)

Isolated at Institute
Belem, Para, Brazil

Host Genus
Culex (Melanoconion) sp.

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
1/15/1959

Place Collected (Minimum of City, State, Country)
Instituto Agronomico do Norte Forest, Brazil

Latitude
2° S

Longitude
48° W

Macrohabitat
Old secondary forest

Microhabitat
Near ground level

Method of Storage until Inoculated
At -60dC

Footnotes

Section III - Method of Isolation

Inoculation Date
2/25/1959

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Not tried

Other Reasons

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical
RNA

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) **1:1000**	After Treatment Titer **<2.5 dex**	Control Titer **6.4 dex**

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions **50-54 nm**	
Mean nm	Range nm	
Measurement Method **Electron microscopy (2)**	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**	**Goose**
pH Range **6.0-6.4**	pH Optimum	
Temperature Range	Temperature Optimum **37dC**	

Remarks
HI, CF, NT; Immuno-adherence test

Serologic Methods Recommended

Footnotes
HI, CF, NT; Immuno-adherence test

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

Aura is a Group A virus of the WEE-Sindbis complex. See References [1] and [12] .

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)	MB 5	2	4+	8.3 * (9)				
Chick embryo (PC)					2-3	Plaques	8.5 * (10)	
Turkey embryo(PC)						Plaques (10)		
Vero (CL)	P-8				9	3 mm	3.7 (11)	
LLC-MK2 (CL)					5	2 mm	6.4 (11)	

* 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. tsted Test used	Country and region
Culex (Mel) sp.	1		Para, Brazil
Aedes serratus	7		
Ae. serratus	1		Argentina (5)

HI antibody rarely encountered in humans, marsupials, rodents, and horses, and not in monkeys, bats, edentates, lizards, rabbits, carnivores, birds, frogs, cows and sheep in Amazon region of Brazil (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)	P 5-10	ic 0.02	Death	2.8	9.2
Mice (nb)		ip 0.02	Death	3.0	7.8
Mice (nb)		sc			
Mice (wn)		ic 0.03	Antibody		
Mice (wn)		ip 0.03	Antibody		
hamsters		ip	Non-lethal, but specific viral immunofluorescence in organs (8).		

Section IX - Experimental Arthropod Infection and Transmission

Section X - Histopathology

Character of lesions (specify host)
Encephalitis and focal myocardial degeneration (6,7,8)

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)
Brazil;Argentina

Suspected (Antibody only detected)

Section XIII - References

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12. Calisher, C.H., et al. 1980. Intervirology. 14:229-232.

Remarks