

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		
<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 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

Hemagglutination Yes	Antigen Source SMB ext. by sucrose-acetone	Erythrocytes (species used) 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 +/- (g)
		Day (c)	Extent (d)	Titer TC ₅₀ /ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	
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. tested 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 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

1. Causey, O.R., et al. 1963. Am. J. Trop. Med. Hyg. 12:777-781.
2. Lascano, E.F., et al. 1962. Rev. Inst. Med. Trop. Sao Paulo 4:351-357.
3. de Martinez Segovia, Z.M. 1970. Arch. ges. Virusforsch. 30:397-400.
4. Esteves, M.B., et al. 1962. Rev. Inst. Med. Trop. Sao Paulo 4:351-357.
5. Barrera Oro, J.G., et al. 1967. Cienc. e. Invest. 23:180-183.
6. Dias, L.B., et al. 1966. Bol. Cent. Est. Hosp. Serv. Est. 18:176.
7. Lascano, E.F., et al. 1970. Arch. ges. Virusforsch 32:99-108.
8. de Paola, D., et al. 1968. An. Microbiol. 15:35-51.
9. Karabatsos, N. and Buckley, S.M. 1967. Am. J. Trop. Med. Hyg. 16:99-105.
10. Pinheiro, F.P. Personal communication.
11. Stim, T.B. 1969. J. Gen. Virol. 5:329-338.
12. Calisher, C.H., et al. 1980. Intervirology. 14:229-232.

Remarks

--