Virus Name: Jurona	Abbreviation: JURV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Vesicular Stomatitis

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
BeAr 40578

Accession Number

Original Date Submitted
1/27/1985

Family
Rhabdoviridae

Genus
Vesiculovirus

Information From
Belem Virus Lab.

Address
Belem Virus Laboratory, Instituto Evandro Chagas, Belem, Para Brazil

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Belem Virus Laboratory

Isolated at Institute
Belem, Para, Brazil

Host Genus
Haemagogus 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
By hand off human bait

Collection Date
3/3/1962

Place Collected (Minimum of City, State, Country)
Belem-Brasilia Highway, km 87, Brazil

Latitude
3° S

Longitude
48° W

Macrohabitat
Virgin forest

Microhabitat
Canopy

Method of Storage until Inoculated
-60dC

Footnotes

Section III - Method of Isolation

Inoculation Date
3/12/1962

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Yes

Other Reasons

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) **1:1000**	After Treatment Titer **<3.5 dex**	Control Titer **6.3 dex**

Other (formalin, radiation)

Virion Morphology

Shape
Bullet-shaped (5)

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 ext. by sucrose-acetone + protamine**	**Goose**
pH Range	pH Optimum	
6.1-6.2	**6.2**	
Temperature Range	Temperature Optimum	
	37dC	

Remarks

Serologic Methods Recommended
CF, HI, NT

Footnotes

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

Jurona HA antigen inhibited by Oropouche 1:20 (8 units) Simbu Grouping serum 1:10, Bunyamwera Grouping serum 1:40.

Jurona serum did not react with EEE, Aura, Una, Mayaro, YF, Ilheus, Bussuquara, SLE, Oriboca, Murutucu, Caraparu, Guama, Maguari, Guaroa, Icoaraci, Tacaiuma, Turlock, Candiru, Anhanga. in the HI test.
In CF Jurona antigen did not react with grouping sera of Groups A, B, C, Guama, Capim, Bunyamwera, Phlebotomus fever, California, Simbu, Bakau; nor with sera of epizootic hemorrhagic disease of deer-NJ, Navarro, Triniti, Ieri, Aruac, Tacaribe, Hart Park, CTF, Anopheles A and B, Panama J55, Tete, Cas Cas, TRVL 42336, Nyamanini, Witwatersrand, Quaranfil, Lebombo, SF Sicilian, Bwamba, Wad Medani, Mossuril, Wongal, Mapputta, Wanowrie, Ganjam (IG 3159), Nodamura, Tsuruse, K-622, Chenuda, VSNJ, Mirim, Oropouche, Icoaraci, Palyam, Tacaiuma, Turlock, Cocal, Lukuni, Candiru, Piry, Pacui, Acara, Irituia, Marco, Timbo, Chaco, or Anhanga.
Following the observation that Jurona virus possessed rhabdovirus morphology [5] , it was serologically placed in the VSV serogroup [6] .

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)	P-5				<4	Plaques	8.3* (4)	
Chick embryo (PC)					2-3	2 sizes	7.0 (4)	
Turkey embryo(PC)						Plaques	6.0 (4)	
GMK (CL)			CPE (4)					
Vero (CL)					2	8 mm	7.7 (3)	
LLC-MK2 (CL)					4	11 mm	7.2 (3)	

* 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
Haemagogus spegazzinii	1		Para, Brazil (1)
Birds, forest		Of 174 sampled by HI, 10% had low-titered antibody not confirmable by NT (2).	

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-2	ic 0.02	Death	1.3	8.0
Mice (nb)		ip 0.02	Death	1.5	
Mice (nb)		sc			
Mice (wn)		ic 0.03	Antibody		
Mice (wn)		ip 0.03	Antibody		

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)
Occasional lesions of the thymus (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)
Brazil

Suspected (Antibody only detected)

Section XIII - References

1. Woodall, J.P. 1967. Atas Simpos. Biota Amazon. 6:31-63.
2. Shope, R.E., et al. 1966. Am. J. Epidem. 84:467-477.
3. Stim, T.B. 1969. J. Gen. Virol. 5:329-338.
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5. Araujo, R. Personal communication. 1982.
6. Tesh. R.B., et al. 1983. J. Gen. Virol. 64:169-176.

Remarks