Virus Name: Patois	Abbreviation: PATV

Status
Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Patois

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
BT 4971

Accession Number

Original Date Submitted
12/13/1984

Family
Bunyavirus

Genus

Information From
Sunthorn Srihongse

Address
Gorgas Memorial Laboratory, P.O. Box 2016, Balboa Heights, Canal Zone

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Margaret A. Grayson (1)

Isolated at Institute
Gorgas Memorial Laboratory, Panama

Host Genus
Sigmodon hispidus

Species

Host Age/Stage
adult

Sex
Male

Isolated From	Isolation Details
Serum/Plasma	

Signs and Symptoms of Illness
presumably health wild animal

Arthropod

Time Held Alive before Inoculation

Collection Method
baited live trap, heart blood taken by syringe

Collection Date
6/16/1961

Place Collected (Minimum of City, State, Country)
two miles north of Almirante

Latitude
10° N

Longitude
80° W

Macrohabitat
tropical rain forest (edge)

Microhabitat
edge of fresh-water marsh

Method of Storage until Inoculated
thermos (wet ice) for transportation. Revco at -65dC later

Footnotes

Section III - Method of Isolation

Inoculation Date
9/26/1961

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
Not tried

Other Reasons
no other isolations of this virus have been made before

Homologous Antibody Formation by Source Animal
Not tested

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) **1:2**	After Treatment Titer **<2.0 dex**	Control Titer **4.6 dex**
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions **<=50 nm**	
Mean nm	Range nm	
Measurement Method **filtration (Mexican strain) (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)
Yes	**SM mouse serum, acetone ext.**	**goose**
pH Range	pH Optimum	
5.75-6.2	**5.75**	
Temperature Range	Temperature Optimum	
4dC-37dC	**22dC**	

Remarks

Serologic Methods Recommended

Footnotes

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

	Antigen of Registered Virus						Immune Serum of Registered Virus				
	HI		CF		NT		HI		CF		NT
Immune Sera	Ht/Ho	Ratio	Ht/Ho	Ratio	Ht/Ho	Antigens	Ht/Ho	Ratio	Ht/Ho	Ratio	Ht/Ho
Murutucu	20/640	1/32	0/16	0		Oriboca	40/2560	1/64	0/64	0	
Madrid	0/1280	0	0/64	0		Marituba	80/2560	1/32	0/64	0	
Zegla	20/640	1/32	32/128	1/4	2.2/>3.5	Mardri	40/2560	1/64	0/64	0	
Gr. C hyperimmune ascitic fluid * (does not include Patois and Zegla)	40					Zegla	80/2560	1/32	128/64	1/1	2.3/>3.6

* Kindly supplied by Dr. Robert E. Shope

NT: LNI in dex

CF: Crude brain or liver antigens did not fix complement in the presence of mouse hyperimmune sera prepared with the following agents: VEE, EEE, WEE, Pixuna, Mayaro, Aura, Una, Guama, Guaroa, Wyeomyia, Kairi, Cache Valley and California.

HI: Acetone extracted serum antigen was not inhibited by hyperimmune sera or ascitic fluid prepared with the following agents: VEE, EEE, Pixuna, Mayaro, Aura, Ilheus, SLE, YF, Bussuquara, DEN-2, Cache Valley, Guaroa, Wyeommyia, Maguari, Kairi, California, Capim, Guajara, Oropouche, Turlock, Bwamba, Anopheles A and B, Tacaribe, Changuinola, Cocal, VS-Indiana, Sicilian sandfly fever, Icoaraci and Chagres viruses.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
blood (LV)

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)	
hamster kidney (PC)	SMB 4	6	CPE	4.0*					
Vero (CL)		6	CPE	5.0					
HeLa (CL)			CPE (6)						
Vero (CL)	SMB 6					No Plaques (7)			
LLC-MK2 (CL)					3	1 mm	8.3* (7)		

* 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	0/398	6/256 HI	Almirante, Bocas del Toro, Province, Panama
Sigmodon hispidus (cotton rat)	3/488	40/270 HI	
Proechimys semispinosus (spiny rat)	0/138	16/76 HI	
Birds	0/1,244		
Reptile	0/311		
Other wild vertebrates	0/52		
Sentinel mouse litters	1/647		
Arthropods	0/377,492		
Sentinel mice	7		Mexico (4)
Sentinel hamsters	9		Mexico;, Belize;, Guatamala (4)
Sentinel hamster	1		Almirante, Panama (8)
Culex sp.	2		Mexico (4)
Culex iolambdis	1		
Cx thriambus	2		
Cx opisthopus	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)	SMB 4	ic 0.02	illness and death	2.5	7.7
mice (nb)		ip 0.02	illness and death	2.5	6.3
mice (nb)		sc			
mice (wn)		ic 0.02	irregular deaths		
mice (wn)		ip 0.1	antibody formation		
guinea pigs			antibodies produced (6)		
rabbits			antibodies produced (6)		

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
	Hamsters infected in laboratory by bite of wild-caught Culex vomerifer (5).								

Section X - Histopathology

Character of lesions (specify host)

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)

Suspected (Antibody only detected)

Section XIII - References

1. Srihongse, S., et al. 1966. Am. J. Trop. Med. Hyg. 15:379-384.
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4. Scherer, W.F., et al. 1972. Am. J. Trop. Med. Hyg. 21:194-200.
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Remarks