Virus Name: Palestina		Abbreviation: PLSV
Status **Probable Arbovirus**	Select Agent **No**	SALS Level **3**

SALS Basis
Isufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.

Other Information

Antigenic Group
Minatitlan

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
76V1565

Accession Number

Original Date Submitted
9/19/1984

Family
Bunyaviridae

Genus
Bunyavirus

Information From
Division of Vector-Borne Viral Diseases

Address
P.O. Box 2087, Fort Collins, Colorado 80522

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
D.B. Francy

Isolated at Institute
DVBVD

Host Genus
Culex (Mel) paracrybda (1)

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod
Depleted

Time Held Alive before Inoculation
Nil

Collection Method
CDC light trap with CO2

Collection Date
5/14/1975

Place Collected (Minimum of City, State, Country)
Palestina, Ecuador, South America

Latitude
1° 30' S

Longitude
79° 30' W

Macrohabitat

Microhabitat

Method of Storage until Inoculated
Dry ice and mechanical freezer (-60dC)

Footnotes

Section III - Method of Isolation

Inoculation Date
3/15/1976

Animal (Details will be in Section 6)
(Tissue Culture)

Route Inoculated

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) **1:2000**	After Treatment Titer **<2.0 dex**	Control Titer **6.2 dex**

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)
No	**SMB ext. by sucrose-acetone**	**Goose**
pH Range **5.75-7.0**	pH Optimum	
Temperature Range **4dC, RT**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, PRNT

Footnotes

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

Antigen and antibody for strain 76V-1565 were tested by complement-fixation with individual and grouping immune mouse ascitic fluids (MIAF) or antigens for more than 250 recognized arboviruses. Antigen of 76V-1565 reacted at 1:32 with NIH Polyvalent no. 2 MIAF. This MIAF contained antibody to Minatitlan, Jurona, Alajuela, Gamboa and Belem viruses. Subsequent CF tests with 76V-1565 antigen gave the following results:

Antibody to:	CF titer with: PLS Antigen	Homologous
Minatitlan	64	128
Mirim	16	128
Patois	16	64
Capim	8	128
Guama	8	512
Belem	<8	32
Jurona	<8	64
Gamboa	<8	64
Alajuela	<8	32

Cross-reactivity of strain 76V-1565 and Minatitlan and Mirim viruses by CF and serum dilution plaque-reduction neutralization tests.

	MIAF					
	CF			NT		
Antigen or Virus	76V-1565	MNT	MIR	76V-1565	MNT	MIR
76V-1565	64	128	8	160 [b]	<20	<20
Minatitlan	16	256	8	40	2560	<20
Mirim	8	8	256	<20	<20	320

[b] Reciprocal of highest dilution producing >90% plaque-reduction.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (LV), spleen (LV), brain (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Vero cell cultures, 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)	
Vero (CL)	Orig.				10		1.7(c)		
Vero (CL)	Vero 3				4		5.7		
DE (PC)	Orig.					No plaques			
DE (PC)	Vero 3					No plaques			

(c) 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) paracrybda	3		Ecuador
Sentinel hamsters *	4		

* Spleen, whole blood and brain tissues.

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)	Orig.	ic	Death	8	
Mice (nb)	Vero 1	ic	Death	6	
Mice	Vero 3	ic	Death	5	
Mice (nb)	Vero 1 SM 5	ic	Death	5	
Mice (nb)	Vero 1 SM 5	ip	None		

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)

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)
Ecuador

Suspected (Antibody only detected)

Section XIII - References

1. Calisher, C.H. et al. 1983. Am. J. Trop. Med. Hyg. 32:877-885.

Remarks