

Virus Name: Playas		Abbreviation: PLAV
Status Possible Arbovirus	Select Agent No	SALS Level 3
SALS Basis Insufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.		
Other Information		
Antigenic Group Bunyamwera		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation 75V3066	Accession Number	Original Date Submitted 4/12/1985
Family Bunyavirus	Genus	
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 Aedes taeniorhynchus	Species	Host Age/Stage adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod Depleted	
Time Held Alive before Inoculation		
Collection Method CDC light trap with CO2	Collection Date 3/8/1975	
Place Collected (Minimum of City, State, Country) Playas		
Latitude 5° 40' S	Longitude 80° 25' W	
Macrohabitat	Microhabitat	Method of Storage until Inoculated dry ice and mechanical freezer (-60dC)
Footnotes		

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
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Inclusion Bodies	Other	
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Hemagglutination

Hemagglutination No	Antigen Source SMB ext. by sucrose-acetone	Erythrocytes (species used) goose
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pH Range 5.75-7.0	pH Optimum	
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Temperature Range 4dC, RT	Temperature Optimum	
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Remarks

Serologic Methods Recommended
CF, PRNT

Footnotes

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

Antigen of strain 75V-3066 was tested by CF with immune mouse ascitic fluids (MIAF) representing viruses of the following serogroups: A, B, C, Bunyamwera, vesicular stomatitis, Capim, Turlock, Gamboa, Patois, Minatitlan, Guama, California, Simbu and Hart Park. The only reaction was with the Bunyamwera grouping fluid. Because more than 240 strains of Maguari virus were isolated from Aedes species (principally or exclusively scapularis) mosquitoes from essentially the same area as that from which strain 75V-3066 was isolated, strains 75V-3066, 75V-5758, and 75V-5938 (all from A. taeniorhynchus) were tested by neutralization with NIAF prepared against prototype Maguari and Ecuadorian topotype Maguari (strain E4-3484) viruses and with a Bunyamwera grouping MIAF, with the following results [1]:

Virus	Strain	Titer of N Antibody to:		
		BeAr 7272	E4-3484	Broad Group BUN
Maguari	BeAr 7272	320	640	>=1280
Maguari	E-43484	640	>=1280	>=1280
Playas	75V-3066	<40	40	160
Playas	75V-5758	<40	40	160
Playas	75V-5938	<40	40	160

Strain 75V-3066 virus and MIAF was tested with Bunyamwera serogroup viruses by serum dilution-plaque reduction neutralization (N) tests in Vero cells.

Virus or MIAF	(Homologous)	75V-3066		Virus or MIAF	(Homologous)	75V-3066	
		Virus	MIAF			Virus	MIAF

75V-3066	(160)	160	160	Taiassui	(320)	-	-
Maguari	(320)	40	-	Tensaw	(640)	40	-
Cache Valley	(160)	40	-	Tlacotalpan	(320)	20	-
Guaroa	(160)	40	-	Tucunduba	(160)	-	-
Anhembi	(640)	20	-	Wyeomyia	(640)	20	-
Kairi	(320)	_ b	-	Batai	(>=2560)	160	-
Lokern	(2560)	40	-	Beliefe	(2560)	20	-
Maine Drain	(1280)	-	-	Birao	(>=2560)	80	-
Northway	(160)	-	-	Bunyamwera	(>=1280)	20	-
Sororoca	(>=2560)	20	-	Germiston	(2560)	-	-
Santa Rosa	(1280)	-	-	Shokwe	(640)	20	-
				llesha	(>=5120)	160	-

^b = <20

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Vero cell cultures

Cell system (a)	Virus passage history (b)	Evidence of Infection						
		CPE			PLAQUES			Growth Without CPE +/- (g)
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	
Duck embryo (PC)	Orig.					No Plaques		
Vero (CL)					2		>3.0 °	
Vero (CL)	Vero 1 SM 3				3		5.6	

° 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
A. taeniorhynchus	3			Ecuador

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 log ₁₀ /ml
mice (nb)	Orig.	ic	paralysis	5	
mice (nb)	Vero 1 SM 3	ip	death	5	5.5
mice (nb)		sc	none		
mice (wn)		ic	death	5-6	3.7
mice (wn)		ip	none		

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log ₁₀ /ml (b)		Incubation period (c)		Transmission by bite (d)		Assay of arthropod, log ₁₀ /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)
Suspected (Antibody only detected)

Section XIII - References

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

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