

Virus Name: Las Maloyas		Abbreviation: LMV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Placed at this biosafety level based on close antigenic or genetic relationship to other viruses in a group of 3 or more viruses, all of which are classified at this level.		
Other Information		
Antigenic Group Anopheles A		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation AG8-24	Accession Number	Original Date Submitted 9/19/1984
Family Bunyaviridae	Genus Bunyavirus	
Information From M. Sabbatini and C. Mitchell	Address Instituto de Virologia, Cordoba, Argentina and CDC, Ft. Collins, CO 80522	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) T.P. Monath and C.J. Mitchell	Isolated at Institute CDC, Ft. Collins, CO	
Host Genus Anopheles albitalarsis, pool of 99	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 Nil		
Collection Method CDC light trap + CO2	Collection Date 4/5/1980	
Place Collected (Minimum of City, State, Country) Estero de las Maloyas, Corrientes Prov., Argentina		
Latitude 27° 20' S	Longitude 58° 10' W	
Macrohabitat Subtropical forest mixed with "esteros" (fresh water swamps)	Microhabitat Flooded pasture bordering the forest	Method of Storage until Inoculated Dry ice and -80dC freezer
Footnotes		

Morphogenesis

Site of Constituent Formation in Cell

Site of Virion Assembly

Site of Virion Accumulation

Inclusion Bodies

Other

Hemagglutination

Hemagglutination

Antigen Source

Erythrocytes (species used)

No

SMB ext. by sucrose-acetone

Goose

pH Range

pH Optimum

5.75-7.0

Temperature Range

Temperature Optimum

Remarks

Serologic Methods Recommended

CF, PRNT

Footnotes

Sucrose-acetone antigen of Las Maloyas virus was tested by CF with the following immune mouse ascitic fluids with negative results [4].

Polyvalent 1 (BAH, BER, EgAn 1398-61, MTR, MTY, TETE), Polyvalent 2, (BLM, GAM, JUR, MARU 11079, MNT), Polyvalent 4 (GA, NYM, THO, UUK), Polyvalent 5 (HUG, LS, MAT, SAW, SOL), Polyvalent 6 (CHO, MCO, PAC, TIM), Polyvalent 7 (FLA, HP, KC, KLA, MEB), Polyvalent 8 (BLU, CGL, CTF, EHD, IbAr 22619, IRI), Polyvalent 10 (DGK, DHO, UPO, WAN), Polyvalent 12 (BIA, OLI, OKO, TAT, WIT), Bunyamwera group, Theiler's GD VII, Simbu group, broad group A, broad group B, broad group C, Guama group, Capim group, California group, Phlebotomus fever group, Patois group, Tacaribe group, Polyvalent Vesicular Stomatitis, mouse hepatitis, TB4-1054, Kwatta, Barur, Aruac, CayAr 404, Trinititi, Pacora, and Navarro.

Titer of 64 was observed with Anopheles group immune fluid that contains antibody to ANA, LUK, TCM, CoAr 1071, CoAr 3624 [3], ANB, BOR, TUR, UMB, AND MPO. Additional CF test showed that Las Maloyas was not related to the Anopheles B or Turlock group viruses represented in that immune fluid.

Cross-CF test and cross-serum dilution plaque-reduction neutralization tests show Las Maloyas virus to belong to the Anopheles A complex of the ANA serogroup [1], [2], but to be a distinct member.

Results of cross-box CF and serum dilution plaque-reduction neutralization tests with strain AG80-24 and four Anopheles A serogroup viruses.

Virus or Antigen	CF Titer of Antibody to:					PRNT Titer of Antibody to:				
	AG80-24	CoAn 57389	LUK	ANA	CoAr 3624	AG80-24	CoAn 57389	LUK	ANA	CoAr 3624
AG80-24	64	256	128	-	8	>1280	-	-	-	-
CoAn 57389	64	128	64	-	-	-	1280	-	-	-
Lukuni	16	32	>1024	-	-	-	-	>2560	-	-
Anopheles A	16	32	128	64	128	-	-	-	640	-
CoAr 3624	-	-	-	32	128	-	-	-	-	>1280

- = <8, CF; <20, PRNT

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							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		
Vero (CL)	0-3	3	2 to 3+		4 to 6	<1mm	5.8*		

* Expressed in dex

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Anopheles albitarsis	1/1,749		Corrientes Province, Argentina
An triannulatus	0/1,388		
An (Nys) spp.	0/4,815		
Culex pipiens complex	0/1,313		
Mansonia indubitans	0/10,053		
Psorophora cyanescens	0/2,352		
Ps confinnis	0/3,479		
Other arthropods (26 species or groups)	0/8,480		

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)	Vero 1 SM 4	ic	Death	4.0	6.0
Mice (nb)		ip			<1.7
Mice (nb)		sc			
Mice (wn)	Vero 1 SM 1	ic	Death	8.0	4.2
Mice (wn)		ip			<2.5
Mice (6-8 wk)		ip			Antibodies

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmission 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) Argentina
Suspected (Antibody only detected)

Remarks

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