

Virus Name: M'poko	Abbreviation: MPOV	
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis		
Other Information		
Antigenic Group Turlock		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation BA 365	Accession Number	Original Date Submitted 11/7/1984
Family Bunyaviridae	Genus Bunyavirus	
Information From J.P. Digoutte	Address Institut Pasteur BP 923, Bangui, Central African Republic	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) J.P. Digoutte, F.X. Pajot	Isolated at Institute Institut Pasteur, Bangui (2)	
Host Genus Mixed Culex	Species	Host Age/Stage Adult (imago)
Sex Female		
<u>Isolated From</u>		<u>Isolation Details</u>
Signs and Symptoms of Illness		Arthropod
Time Held Alive before Inoculation		
Collection Method Collected by hand	Collection Date 11/21/1966	
Place Collected (Minimum of City, State, Country) M'Poko Bridge near Bangui, Cent. Afr. Rep.		
Latitude 4° 19' N	Longitude 18° 31' E	
Macrohabitat Savannah, forest mosaic	Microhabitat Ground level; bank of river; daylight	Method of Storage until Inoculated -65dC
Footnotes		

Section III - Method of Isolation

Inoculation Date
11/21/1966

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
No

Other Reasons
No similar virus in laboratory

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)
1:1

After Treatment Titer
<2.0 dex

Control Titer
7.6 dex

Lipid Solvent (chloroform)

After Treatment Titer

Control Titer

Lipid Solvent (deoxycholate)
0.5%

After Treatment Titer
<2.0 dex

Control Titer
7.2 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
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Inclusion Bodies	Other	
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Hemagglutination

Hemagglutination No	Antigen Source SMB ext. by fluorocarbon, sucrose-acetone + protamine	Erythrocytes (species used) Goose
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pH Range 5.8-7.2	pH Optimum
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Temperature Range Room temperature	Temperature Optimum
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Remarks

Serologic Methods Recommended
CF, NT

Footnotes

CF tests

Homologous titer 256/64

BA 365 gives negative results with the following sera from mice:

Group A:	chickungunya, o'nyong nyong, Semliki Forest virus, Sindbis, Middelburg, Ndumu.
Group B:	Ntaya, Wesselsbron, Usutu, West Nile, Dakar bat, Uganda S, yellow fever, Zika, Spondweni, Bukalasa bat, Entebbe bat.
Group Bunyamwera:	Germiston, Ilesha, Shokwe.
Group Bwamba:	Bwamba, Pongola.
Group Simbu:	Simbu, Ingwavuma.
Others:	Chenuda, Nyamanini, Thogoto, Wad Medani, Bandia, Lebombo, Mossuril Nyando, Olifantsvlei, Tanga, Witwatersrand, Tataguine, Lagos bat, Quarantile.

However BA 365 is related to Yaba 1 as shown by following cross CF tests [3] :

Antigens	Turlock Ascitic fluid	Umbre Serum	Yaba 1 Serum	BA 365 Ascitic fluid
Turlock	64/256	64/64	16/64	4/256
Umbre	8/16	128/64	8/4	2/4
Yaba 1	8/64	16/64	256/256	16/1024
BA 365	4/64	16/64	256/64	16/256

On further testing, M'Poko was found to be indistinguishable from Yaba-1 by cross CF and NT [5].

Neutralization data shown on the Lednice virus registration card indicate that Yaba 1 and M'Poko viruses manifest two-way differences [7].

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	
		CPE			PLAQUES				
								+/- (g)	
HeLa (CL)	SMB 8	7-8	CPE	8.4*					
Chick embryo fibroblasts(PC)					3	Plaques	8.4*		

* 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
Mixed Culex	3/2,000 pools		Surroundings of Bangui Central African Rep.
Culex decens	1		Centr.Afr.Republic (6)
Culex (Cux) perfuscus	1/2,000 pools		Surroundings of Bangui Central African Rep.
Man		11/32	Central African Rep.
Turdus libonyanus (bird)	1		Centr. African Rep.(6)
Culex cinereus	1		Republic of Guinea (8)

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 8	ic 0.02	Death	2	8.6	
Mice (nb)		ip				
Mice (nb)		sc				
Mice (wn)		ic 0.02	Death	3	8.6	
Mice (wn)		ip	None			

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)
Central African Republic

Suspected (Antibody only detected)

Section XIII - References

1. Rapports sur le fonctionnement technique de l'Institut Pasteur de Bangui, 1966, 1967, 1968.
2. Digoutte, J.P., et al. 1970. Ann. Inst. Pasteur 119:512-519.
3. Shope, R.E. Personal communication.
4. Henderson, B.E., et al. 1969. E. Afr. Virus Res. Inst. Rep. No. 18:31-33.
5. Digoutte, J.P. Personal communication. Jan. 5, 1973.
6. Rapport Annuel de l'Institut Pasteur de Bangui. 1974.
7. Calisher, C.H., et al. 1984. Acta Virol. 28:148-151.
8. Boiro, I., et al. 1985. Bull. Soc. Path. Exotique 78:425-455.

Remarks