Virus Name: Gomoka	Abbreviation: GOMV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Ungrouped

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
DakArB 2712

Accession Number

Original Date Submitted
8/9/1984

Family
Not listed

Genus
Not listed

Information From
J.P. Digoutte

Address
Institut Pasteur B.P. 304 Cayenne Guyane Francaise

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
J.P. Digoutte, R. Cordellier

Isolated at Institute
Bangui, Central African Republic

Host Genus
Anopheles paludis

Species

Host Age/Stage
Imagos

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Collected by hand

Collection Date
5/1/1970

Place Collected (Minimum of City, State, Country)
Near Bambio on the fourth parallel, Cent. Afr.Rep.

Latitude
3° 57' N

Longitude
16° 58' E

Macrohabitat
Equatorial forest

Microhabitat

Method of Storage until Inoculated
Liquid nitrogen, Revco at -75dC

Footnotes

Section III - Method of Isolation

Inoculation Date
5/20/1970

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
No

Other Reasons
First virus of this type 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)
totally sensitive to pH 3.0 (3)

Lipid Solvent (ether - % used to test) **1:1**	After Treatment Titer **<2.0 dex**	Control Titer **4.7 dex**
Lipid Solvent (chloroform)	After Treatment Titer **<2.0 dex**	Control Titer **4.5 dex**
Lipid Solvent (deoxycholate) **0.2%**	After Treatment Titer **<2.0 dex**	Control Titer **4.0 dex**

Other (formalin, radiation)

Virion Morphology

Shape **Reoviridae-like (3)**	Dimensions **62-67 nm**	
Mean **65 nm**nm	Range nm	
Measurement Method **EM (3)**	Surface Projections/Envelope **No 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 **6.0-7.0**	pH Optimum	
Temperature Range **4dC, RT, 37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

CF tests. Homologous = 8/4 Institut Pasteur (Dakar). DakArB 2172 gives negative results with the following viruses:

Group A;	Semliki Forest virus, chikungunya, o'nyong nyong, Begoa (DakHB 543), Sindbis, DakArY 251, Middelburg, Ndumu.
Group B;	Ntaya, Bagaza (DakArB 209), Wesselsbron, DakArY 276, West Nile, Koutango, Dakar bat, Uganda S, Saboya, Banzi, Bouboui, yellow fever, Zika, Spondweni, Bukalasa bat, Royal Farm, Kadam (UgAr 6640), Dak Ar 310, Usutu.
Bunyamwera;	Bunyamwera, Germiston, Ilhesha, Shokwe, Birao.
Simbu;	Ingwavuma, Simbu, DakAnB 331, DakArB 994, DakArB 1351.
Bwamba;	Bwamba, Pongola.
California;	Lumbo.
Olifantsvlei;	Olifantsvlei, Bobia, Botambi.
Turlock;	Yaba 1, M'Poko (DakArB 365).
Nyando;	Nyando, Eret 147, DakArY 176.
Mossuril;	Mossuril.
Matariya;	Garba (DakAnB 423).
Eubenangee;	Pata.

Phlebotomus;	Nafada (DakAnD 3150).
NSD;	Dugbe.
Kemerovo;	Chenuda, Wad Medani.
Qalyub;	Bandia.
Quaranfil;	Quaranfil.
Bhanja;	Bhanja (DakArD 9540).
Boteke;	Boteke.
Le Dantec;	Keuraliba, Le Dantec.
Nyamanini;	Nyamanini.
Thogoto;	Thogoto.
Miscellany;	Witwatersrand, Okola, Nkolbisson, Tataguine, Lebombo, Tanga, Jos (DakArD 3491), Gossas, Gomoka, Somone (DakArD 4499), Toure, Zinga, Bangoran, Sandjimba, Yata, Landjia, Nola (DakArB 2882), Bangui, Kolongo (DakAnB 1094), Bimbo (DakAnB 1054), DakAnB 277, Ouango (DakAnB 1582), Saint-Floris (DakAn 512r), DakAnB 160, DakAnB 188.
Nonarbovirus;	Herpesvirus (DakHB 3667).

In addition, DakArB 2712 antigen failed to react with the following immune fluids:

Group B;	Entebbe bat, Montana Myotis leukoencephalitis, dengue 1, 2, 3, 4, Th Sman, TH-36.
Simbu;	Sango, Shamonda, Sabo, Shuni, Sathuperi, Yaba 7.
California;	Group serum.
Tete;	Tete, Matruh.
EHD-NJ;	Abadina (IbAr 22388), IbAr 22619.
Matariya;	Matariya, Burg el Arab.
Corriparta;	Acado.
VSV;	Chandipura (IbAn 9978).
Phlebotomus;	Group serum. Arumowot (IbAn 15736).
Kaisodi-Qalyub-Quaranfil;	Group serum (Johnston Atoll, Kaisodi, Bandia, Silverwater, Quaranfil, Lanjan, Qalyub).
Uukuniemi;	Grand Arbaud, Ponteves, EgAn 1825.
Congo;	Congo.

Bluetongue;	Type 7 (IbAn 22703), type 10 (IbAr 22618).
Rabies serogroup;	kotonkan, Lagos bat.
Miscellany;	SudAr 1275/64, IbAn 2898 (Oyo), IbAn 17143, Mount Elgon bat, IbAn 33709, IbAn 28946.
Nonarboviruses;	LCM-rabies, IbAn 27377 and IBH 29777 (related to rabies), IbAn 20433 (NDV).

Results indicate that DakArB 2712 is apparently a new virus.

Gomoka virus is related by IFA and CF to Arkonam and Ieri viruses and weakly cross-reacts by IFA and Great Island virus [3] . Gomoka, Arkonam and Ieri viruses form the new Ieri antigenic group.

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)	

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
Anopheles paludis	1/45 pools		Central African Republic
Culex perfuscus	1/220 pools		
Andropadus virens (bird; blood)	2/251		

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	3	4.5
Mice (nb)		ip 0.03	No illness		
Mice (nb)		sc			
Mice (wn)		ic 0.03	No illness		
Mice (wn)		ip 0.1	Antibody		

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)
Central African Republic

Suspected (Antibody only detected)

Section XIII - References

1. Rapport Annuel de l'Institut Pasteur de Bangui. 1970. p. 43.
2. Robin, Y. Institut Pasteur de Dakar. Personal communication.
3. Zeller, H. et al. 1989. III. ARch. Virol. Submitted.

Remarks