

Status: Possible Arbovirus

SALS Level: 3

Antigenic Group: Ungrouped

Taxonomic status: *Bunyavirus-like*

Other Information: None.

Select Agent:

SALS Basis: IE

HEPA Filtration:

**Section I - Full Virus Name and Prototype Number****Full Virus Name:** Bobaya**Prototype Number:**

AnB 2208d

**Information from:** J.P. Digoutte**Date:**

8/29/1984

**Address:** Institut Pasteur B.P. 304 Cayenne Guyane Francaise

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Reviewed by editor

**Section II - Original Source****Isolated by:** J.C. Jacobi, M. Germain      **at:** Institut Pasteur, Bangui**Genus and species:** *Turdus libonyanus*      **Sentinel X****Age/Stage:** Adult      **Sex:**

Isolated From	Isolation detail
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**Signs and symptoms of illness:**

Arthropod engorged depleted gravid

**Time held alive before inoculation:**

Collection date: 10/8/1971    Method: Collected by net

Place collected: M'Boko, Central African Republic

Latitude: 4° 22' " N      Longitude: 18° 41' " E

Macrohabitat: Forest savannah mosaic near Oubangui river

**Microhabitat:**

Method of storage until inoculated: Revco at -75dC

**Footnotes:****Section III - Method of Isolation and Validity****Inoculation Date:** 11/5/1971**Animal:** nb mice      **Embryonated egg:**      **Tissue Culture:**

(Details in Section VI - Biologic Char.)

**Route inoculated:** ic, ip and sc      **Reisolation:** No**Other reasons:** First virus of this type in laboratory**Homologous antibody formation by source animal (See Section II):****Test used:** HI      CF      NT**Other:****Footnotes:**

## Section IV - Virus Properties

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### Physicochemical:

RNA:      DNA:      Single Strand:      Double Strand:  
Pieces:      Infectivity:      Sedimentation coefficient(s): /strong>  
Percentage wt. of virion protein      , lipid      carbohydrate  
Virion polypeptides:  
Number:      Details:  
Non-virion polypeptides:  
Number:      Details:  
Virion density:  
Nucleocapsid density      Sedimentation coefficient:  
Sedimentation coefficient:

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### Stability of infectivity (effects) pH

Lipid solvent:  
(ether)      After treatment titer      Control titer  
(chloroform)      After treatment titer <2.0 dex      Control titer 7.0 dex  
Detergent:  
(deoxycholate)      After treatment titer      Control titer  
Other (formalin, radiation):

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### Virion morphology:

ShapeSpherical; resemble Bunyaviridae (3)  
Dimensions 90-100 nm  
Mean (nm)      range (nm)      how measured Electron microscopy  
Surface projections, envelope  
Nucleocapsid dimensions, symmetry

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### Morphogenesis:

Site of constituent formation in cell  
Site of virion assembly  
Inclusion bodies  
Other

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### Hemagglutination:

HemagglutinationNo      Antigen source SMB ext. by sucrose-acetone  
Erthrocytes Goose      pH range 5.7-6.6      pH optimum  
Temperature optimum      range RT  
Remarks  
Serologic methods recommended CF  
Footnotes:

## Section V - Antigenic Relationship And Lack of Relationship To Other Viruses

CF test - homologous = 64/128; Institut Pasteur (Dakar) [2] : DakAnB 2208d gives negative results with the following viruses:

Group A;	Semliki Forest virus, chikungunya, O'nyong-nyong, Igbo-Ora (B 543), Sindbis, ArY 251, Middelburg, Ndumu.		
Group B;	Ntaya, Bagaza (ArB 209), Wesselsbron, ArY 310, Usutu, ArY 276, West Nile, Koutango (AnD 5443), Dakar bat, Uganda S, Saboya (AnD 4600), Banzi, Bouboui (ArB 490), yellow fever, Zika, Spondweni, Bukalasa bat (AnD 595), Royal Farm (T 285), Kadam (UgAr 6640), AnY 589.		
Bunyamwera;	Bunyamwera, Germiston, Ilesha, Shokwe, Birao (ArB 2198).		
Simbu;	Buttonwillow, Ingwavuma, Simbu, Nola (ArB 2882).		
Bwamba;	Bwamba, Pongola.	California;	Lumbo.
Olifantsvlei;	Olifantsvlei, Bobia (ArB 1569), Botambi (ArB 937).		
Tete;	Tete (SAA 3518), Bahig (EgB 90), Matruh (EgAn 1047), DakAnB 1422, AnB 1292, AnB 1544, AnB 1564.		
Phlebotomus;	Arumowot (SudAr 1284), Gabek Forest (AnD 3150), Gordil, Saint-Floris (AnB 512-Re), Zinga (ArB 1976).		
Boteke;	Boteke, Zingilamo.		
Corriparta;	Acado (EhAr 1846), Corriparta (ArB 3689).		
Eubenangee;	Eubenangee (In 1074), Pata.		
Matariya;	Burg el Arab (EgAn 3782), Matariya (EgAn 1477), Garba.		
Mossuril;	Bangoran (ArB 2053), Mossuril, Kamese.		
Nyando;	Eret 147 (AnY 176), Nyando.	Turlock;	Yaba 1 (ArB 365).
Congo;	Congo (IbAr 10200).	NSD;	Dugbe (IbAn 1792).
Kemerovo;	Chenuda, Wad Medani.		
Qalyub;	Bandia (ArD 611), Qalyub (EgAr 370).	Quaranfil;	Quaranfil.
Thogoto;	Thogoto.	Bhanja;	Bhanja (ArD 9540).
Keuraliba;	Keuraliba (AnD 5314), Le Dantec (HD 763).		
Nyamanini;	Nyamanini.		
Ungrouped;	Lebombo, Nkolbisson, Okola, Tanga, Tataguine, Witwatersrand, Orungo (ArB 2078), SudAr 1275, Jos (ArD 15131), AnYV 177, Somone (ArD 4499), IbAn 39048 (ArYT ), Gossas (AnD 401), Toure (AnD 4611), Yogue (AnD 56), AnD 11411, Yata (ArB 2181), Bangui (HB 754), Landjia (AnB 769), Gomoka (AnB 787), Kolongo (AnB 1094), Bimbo (AnB 1054), Ouango (AnB 1582), Oubangui (ArB 3816), Sandjimba (AnB 373), Ippy (AnB 188), Koumbala (AnB 160), AnB 277, AnB 1227, AnB 1398, AnB 904.		
Nonarbovirus;	Herpes virus (HB 3667).		

In addition, DakAnB 2208d antigen failed to react with the following immune fluids:

Group B;	Entebbe bat, Montana Myotis leukoencephalitis, dengue 1, 2, 3, 4, Potiskum (IbAn 10069).		
Simbu;	Sango, Shamonda, Sabo, Shuni, Sathuperi, Yaba 7.		
California;	Group serum.		
VSV;	Chandipura (IbAn 9978).	EHD;	IbAr 22619.
Kaisodi-Qalyub-Quaranfil;	Serum polyvalent (Johnston Atoll, Kaisodi, Bandia, Silverwater, Quarafil, Lanjan, Qalyub).		
Uukuniemi;	Grand Arbaud, Ponteves, EgAn 1825.		
Bluetongue;	type 10 (IbAr 22618).	Phlebotomus;	Group serum.
Rabies serogroup;	Lagos bat.		
Ungrouped;	IbAr 23380, IbAn 2898 (Oyo), IbAn 17143, Mount Elgon bat, IbAn 33709, IbAn 28946, EgAn 1398/61 (IbAn 39652).		
Non arbovirus;	LCM, rabies, IbAn 27377, IbH 29777 (related to rabies), IbAn 20433 (NDV).		

Further, DakAnB 2208d antigen was screened against NIH grouping fluids with negative results [2].

Results indicate that DakAnB 2208d is apparently a new virus.

## Section VI - Biologic Characteristics

Virus source (all VERTEBRATE isolates): CNS (LV), heart (LV), liver (LV) (pooled tissues)

Lab Methods of Virus Recovery (ALL ISOLATIONS): Newborn mice

Susceptibility of Cell Culture Systems:

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)				

## Section VII - Natural Host Range

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Turdus libonyanus	1/20		Central African Republic (1)

## Section VIII - Susceptibility To Experimental Infection (Record Viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log <sub>10</sub> /ml	
Mice (nb)	SM 7	ic 0.02	Death	3	7.0	
Mice (nb)		ip 0.02	No illness			
Mice (nb)		sc				
Mice (wn)		ic 0.03	Death	6	4.0	
Mice (wn)		ip 0.1	Antibody			

## Section IX - Experimental Arthropod Infection And Transmission

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Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c) Days	Transmission by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected		Host	Ratio	Whole	Organ	System

## Section X - Histopathology

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Character of lesions:

Inclusion bodies:

Cytoplasmic:(M) (LV) Intranuclear: (M) (LV)

Organs-tissues affected:

Category of tropism:

## Section XI - Human Disease

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Human disease:	In nature:	(S) (R)
	Death:	(S) (R)
	Residua:	(S) (R)
Laboratory infections:	Subclinical:	(S) (R)
	Overt Disease:	(S) (R)

Clinical manifestations:

Category: No. of cases:

## Section XII - Geographic Distribution

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Known (virus):

Central African Republic

## Section XIII - References

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1. Digoutte, J.P. Rapport Annuel de l'Institut Pasteur de Bangui. 1971. p. 39.
2. Robin, Y. Institut Pasteur de Dakar. Personal communication.
3. El Mekki, A., et al. 1981. Trans. Roy. Soc. Trop. Med. Hyg. 75:799-806.

## Section XIV - Remarks

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