Virus Name: Le Dantec	Abbreviation: LDV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Le Dantec

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
DakHD 763

Accession Number

Original Date Submitted
11/17/1984

Family
Rhabdoviridae

Genus
Not listed

Information From
Arbovirus Reference Centre

Address
Institut Pasteur, BP 220, Dakar, Senegal

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Docteur P. Bres

Isolated at Institute
Institut Pasteur, Dakar

Host Genus
Human

Species

Host Age/Stage
10 years

Sex
Female

Isolated From	Isolation Details
Serum/Plasma	

Signs and Symptoms of Illness
Liver and spleen enlargement

Arthropod

Time Held Alive before Inoculation

Collection Method
Venipuncture

Collection Date
5/13/1965

Place Collected (Minimum of City, State, Country)
Le Dantec Hospital, Senegal

Latitude
14° 40' N

Longitude
17° 26' W

Macrohabitat
Sea level; tropical; one rainy season (July-October)

Microhabitat
Hospital

Method of Storage until Inoculated
At -50dC

Footnotes

Section III - Method of Isolation

Inoculation Date
5/18/1965

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
Yes

Other Reasons
First virus of thistype in laboratory

Homologous Antibody Formation by Source Animal
No

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) **20%**	After Treatment Titer **<1.5 dex**	Control Titer **6.3 dex**
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape **Rhabdovirus morphology (4)**	Dimensions	
Mean nm	Range nm	
Measurement Method **Thin-section electron microscopy (4)**	Surface Projections/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 + protamine tr.; fluorocarbon**	**Goose**
pH Range **5.7-6.6**	pH Optimum	
Temperature Range	Temperature Optimum **Room temperature**	

Remarks

Serologic Methods Recommended
CF

Footnotes

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

CF test. Homologous titer = 128/64.

(Institut Pasteur, Dakar) HD 763 did not react with the following viruses:

Group A;	Semliki Forest virus,chikungunya, o'nyong-nyong, Begoa (DakHB 543), Sindbis, DakArY 251, Middleburg, Ndumu.
Group B;	Ntaya, Bagaza (DakArB 209), Wesselsbron, DakArY 310, Usutu, DakArY 276, West Nile, Koutango, Dakar bat, Uganda S. Saboya, Banzi, Bouboui, yellow fever, Zika, Spondweni, Bukalasa bat,(DakAnD 595), Royal Farm, Kadam (UgAr 6640).
Bunyamwera;	Bunyamwera, Germiston, Ilesha, Shokwe, Birao (DakArB 2198).
Simbu;	Simbu, Ingwavuma, DakAnB 331, DakArB 994, DakArB 1351.
Bwamba;	Bwamba, Pongola.
California;	Lumbo.
Olifantsvlei;	Olifantsvlei, Bobia (DakArB 1569).
Turlock;	Yaba 1, M'Poko (DakArB 365).
Nyando;	Nyando, Eret 147, DakArY 176.
Mossuril;	Mossuril.
Matariya;	DakAnB 423.

Eubenangee;	Pata (DakArB 1327).
Phlebotomus;	Nafada (DakAnD 3150).
NSD;	Dugbe, DakAnB 373.
Kemerovo;	Chenuda, Wad Medani.
Qalyub;	Bandia.
Quaranfil;	Quaranfil.
Others;	Witwatersrand, Okola, Nkolbisson, Tataguine, Lebombo, Tanga, Nyamanini, Thogoto, Jos (DakArD 3491), Bhanja (DakArD 9540), Gossas, Somone (DakArD 4499), Toure, Keuraliba, Yogue, Hann (DakArD 8194), Botambi, Boteke, Zinga (DakArB 1976), Bangoran (DakArB 2053), Sokoumba (DakArB 2078), Yata (DakArB 2181), DakHB 754, DakAnB 769, DakArB 2712, DakArB 2846, DakArB 2882, DakArY 347.
Nonarbovirus;	Herpesvirus (DakHB 3667).

In addition, D 763 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, IbAn 28558.
California;	Group serum.
Tete;	Tete, Matruh.
EHD-NJ;	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).
Others;	SudAr 1275/64, Abadina (IbAr 22388), kotonkan, Oyo (IbAn 2898), IbAn 17143, Lagos bat, Mount Elgon bat, IbAn 33709, IbAn 28946, SAAN 4511.
Nonarboviruses;	LCM-rabies, Mokola, and IbH 2977 (related to rabies), IbAn 20433 (NDV).

Yale Arbovirus Research Unit (New Haven): HI test D 763 antiserum did not react with the following antigens; Oriboca, Itaqui, Marituba, Murutucu, Nepuyo, Gumbo Limbo, Apeu, Caraparu, Pixuna, Aura, Mucambo, EEE, WEE, VEE, Mayaro, Arumowot (IbAn 15736), Naples, Anhanga, Sororoca, Tacaiuma, Turlock, Umbre, Utinga, Zegla, Sango (Maru-11709), SLE, Powassan, California, Icoaraci, Sicilian, Tahnya, Guaroa, Taissui, Maguari, Anopheles A, Anopheles B, Bakau, Benfica, Buttonwillow, Guajara, Kairi, Ketapang, Manzanilla, Patois, Itaporanga, Candiru, Chagres, Bujaru, Pacora, Karimabad, Wongal.
Le Dantec virus was shown to be antigenically related to Keuraliba virus by CF tests although both viruses were distinct [4] . Previously, Keuraliba virus was antigenically placed in the VSV serogroup, but this relationship is now in question. It is recommended that Keuraliba virus be removed from the VSV serogroup; therefore, Keuraliba and Le Dantec viruses will now comprise the Le Dantec serogroup.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)

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)
Vero (CL)	SM 3	9	2+			0.5-1.0 mm	4.8* (4)	
BHK-21 (CL)		2	2+			2-4 mm	8.7 (4)	
CER (CL)		2	4+			2-3 mm	8.3 (4)	
SW13 (CL)		2	4+			2-4 mm	8.3 (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
Man	1/2174		Dakar, Senegal

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 5	ic 0.02	Death	3	7.3
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic 0.03	None; antibody prod.		
Mice (wn)		ip 0.1	None; antibody prod.		
rabbit (2 mo)		iv 0.5	Antibody production		

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)
Inoculated newborn mice: severe lesions of encephalitis with important destruction of the neurons of the cerebrum (cortex, thalamus, hypothalamus) less acute in the spinal cord. Perivascular cuffing with mononuclear cells. No myositis.

Inclusion Bodies — Intranuclear

Organs/Tissues Affected
Brain (LV), spinal cord (LV)

Category of tropism
Neurotropic

Section XI - Human Disease

In Nature — Residual — Death
Reported

Subclinical — Overt Disease

Clinical Manifestations
Fever (R), headache (R), CNS signs (including encephalitis (R)

Number of Cases — Category (i.e. febrile illness, etc.)
Febrile illness, encephalitis

Section XII - Geographic Distribution

Known (Virus detected)
Senegal

Suspected (Antibody only detected)

Section XIII - References

1. Rapport du Centre O.M.S. de Reference pour les Arbovirus, Institut Pasteur de Dakar. 1968.
2. Director, YARU. Personal communication. 1968.
3. Woodruff, A.W., et al. 1977. Brit. Med. J. 3:1632-1633.
4. Cropp, C.B., et al. Personal communication. 1984.

Remarks