Virus Name: Tibrogargan		Abbreviation: TIBV
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
CSIRO 132

Accession Number

Original Date Submitted
9/25/1984

Family
Rhabdoviridae

Genus

Information From
D.H. Cybinski

Address
CSIRO, Long Pocket Laboratories, Private Bag No. 3, Indooroopilly, Queensland, Australia 4068

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
T.D. St. George

Isolated at Institute
CSIRO Long Pocket Laboratories

Host Genus
Culicoides brevitarsis

Species

Host Age/Stage

Sex
Not Answered

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod
Depleted

Time Held Alive before Inoculation
12 hours

Collection Method
truck trap

Collection Date
12/6/1976

Place Collected (Minimum of City, State, Country)
Peachester, Queensland

Latitude
26° 51' S

Longitude
152° 53' E

Macrohabitat
farmland

Microhabitat

Method of Storage until Inoculated
4dC

Footnotes

Section III - Method of Isolation

Inoculation Date
12/7/1976

Animal (Details will be in Section 6)
nb mice

Route Inoculated
intracerebral

Reisolation
No

Other Reasons
cattle in area seroconverted. Distinct from any other 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) **10%**	After Treatment Titer **0.7 dex**	Control Titer **2.0 dex**
Lipid Solvent (chloroform) **10%**	After Treatment Titer **<1.0 dex**	Control Titer **2.0 dex**
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape **bullet-shaped particles**	Dimensions **62.5 x 250 nm**	
Mean nm	Range nm	
Measurement Method **electron microscopy**	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 **Not tried**	Antigen Source	Erythrocytes (species used)
pH Range	pH Optimum	
Temperature Range	Temperature Optimum	

Remarks

Serologic Methods Recommended
serum neutralization in newborn mice, BHK-21 or Ve

Footnotes

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

CSIRO 132 antigen reacted positively with its homologous ascitic fluid and wa negative at 1:4 with fluids of group A, group B, group Phlebotomus fever, group Simbu, group VSV (Indiana, New Jersey, Cocal), group Tacaribe (Tacaribe, Junin, Amapari, Pichinde, Tamiami), group Sakhalin, group Bunyamwera, group Kemerovo, polyvalent Quaranfil (Quaranfil, Kaisodi, Bandia, Johnston Atoll, Qalyub, Silverwater, Lanjan), polyvalent Anophleles A (Anophleles A, Lukuni, Anopheles B, Boraceia, Tacaiuma, CoAr 1071, CoAr 3624, Turlock, Umbre, M'Poko), polyvalent Bwamba (Bwamba, Pongola, Mossuril, Kamese, Eretmapodites 147, Nyando), polyvalent Palyam (Palyam, Vellore, Kasba, D'Aguilar, Corriparta, Pata, Eubenangee, Acado), polyvalent rabies, LCM, herpesvirus, NDV, vaccinia, polyvalent Patois, Zegla, Shark River, Mirim, Bertioga, polyvalent Congo, Hazara, Ganjam, Dugbe, Bhanja, and polyvalent fluids with antibody to (1) Bahig, Tete, Matruh, Matariya, Burg el Arab, (2) Jurona, Minatitlan, Gamboa, Juan Diaz, Belem, (3) Koongol, Wongal, Bakau, Ketapang, Mapputta, Trubanaman, Maprik, (4) Nyamanini, Uukuniemi, Grand Arbaud, Thogoto, (5) Hughes, Sawgrass, Matucare, Lone Star, Soldado, (6) Marco, Timbo, Chaco, Pacui, (7) Hart Park, Flanders, Kern Canyon, Klamath, Mt. Elgon Bat, (8) bluetongue, EHD, IbAr 22619, Changuinola, Irituia, Colorado tick fever, (9) Bobia, Tataguine, polyvalent joinjakaka, Mitchell River, Warrego, Japanaut, Belmont, Wallal, Wongorr, Charleville, Almpiwar and to mouse hepatitis.
CSIRO 132 antigen and hyperimmune ascitic fluid (homologous titer 256/>=128) were examined by CF test against the following rhabdovirus antigens and antisera with negative results: VS-Indiana, Cocal, Chandipura, Isfahan, Yug Bogdanovac, Jurona, Keuraliba, La Joya, Perinet, Piry, Porton-S 1643, VS-Alagoas, VS-New Jersey, rabies, Duvenhage, kotokan, Lagos bat, Mokola, Obodhiang, Charleville, Baangoran, Barur, Cuiaba, Kamee, Kern Canyon, Marco, Mossuril, Kwatta, BeAn 157575, Hart Park, Flanders, Mosqueiro, Sawgrass, Connecticut, New Minto, Timbo, Chaco, Sena Madureira, Almpiwar, Aruac, bovine ephemeral fever (antiserum only), Gray Lodge, Inhangapi, Joinjakaka, Klamath, Mt. Elgon bat, Navarro, Sripur, Yata, Kimberly, Kununurra, and Parry Creek.
These results were kindly supplied by Drs. R.E. Shope and R.B. Tesh, Yale Arbovirus Research Unit, Connecticut, USA.

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							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
BHK-21 (CL)	P-2 BHK-21	4-5	Complete	3*					

* 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
Culicoides brevitarsis	1/>1,000		Southeast Queensland, Australia
Water buffaloes	none	21/34 NT	Far north Australia
Cattle	none	Some sentinel herds tested were up to 100% positive	Northern, central and eastern Australia

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)	insect material	ic	paralysis, death	3	5.0
mice (nb)		ip			
mice (nb)		sc			
mice (wn)		ic			
mice (wn)		ip			

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)

Suspected (Antibody only detected)

Section XIII - References

1. Cybinski, D.H., et al. 1980. Vet. Microbiol. 5:301-308.

Remarks