Virus Name: Taggert	Abbreviation: TAGV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Sakhalin

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
MI14850

Accession Number

Original Date Submitted
8/27/1984

Family
Bunyaviridae

Genus
Nairovirus

Information From
R.L. Doherty

Address
Queensland Institute of Medical Research, Brisbane Australia

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Doherty and colleagues

Isolated at Institute
QIMR, Brisbane

Host Genus
Ixodes (Ceratixodes) uriae

Species

Host Age/Stage
Nymphs

Sex
Not Answered

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
By hand

Collection Date
1/1/1972

Place Collected (Minimum of City, State, Country)
Macquarie Island, Southern Ocean, Australia

Latitude
54° 30' S

Longitude
159° 0' E

Macrohabitat
Island in Southern Ocean, 800 miles southeast of Tasmania

Microhabitat
In tussock grass (Poa foliosa) and under planks on the foreshore near a rookery

Method of Storage until Inoculated
Trans. alive to Aust. at ambient temp, held at 8-1dC until moulted

Footnotes

Section III - Method of Isolation

Inoculation Date
3/1/1972

Animal (Details will be in Section 6)
nb mouse

Route Inoculated
Intracerebral

Reisolation
Yes

Other Reasons
Additional isolates from same collection; virus distinct from any previously in this lab.

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) **50%**	After Treatment Titer **<2.0 dex**	Control Titer **4.0 dex**
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate) **1:1000**	After Treatment Titer **<2.0 dex**	Control Titer **3.8 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
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination **No**	Antigen Source **SMB and blood ext. by sucrose-acetone**	Erythrocytes (species used) **Gander**
pH Range **6.0-7.6**	pH Optimum	
Temperature Range **37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

1. Initial studies at QIMR, Brisbane detected no relationship to 36 viruses isolated in Australia and New Guinea.

2. Studies by Dr. Andrew J. Main Jr., at Yale Arbovirus Research Unit, New Haven, Conn., U.S.A., showed antigenic relationship to members of the Sakhalin group, but not to some 200 other arboviruses. Cross-complement fixation and neutralization tests with members of the Sakhalin group showed:

	Taggert Virus or Antigen			Viruses or Antigens	Immune fluid to Taggert		
	CF		NT		CF		NT
Immune Sera or Ascitic Fluid	Ht/Ho	Ratio	Ht/Ho		Ht/Ho	Ratio	Ht/Ho
USA 86	128/>1024	>1/8	1.0/2.1	USA 86	128/1024	1/8	1.5/2.9
Sakhalin (Leiv 71c)	4/64	1/16	0.0/1.8	Sakhalin	256/1024	1/4	1.7/2.9
Clo Mor (ScotAr 7)	<4/16	<1/4	0.0/0.0	Clo Mor	64/1024	1/15	0.0/2.9

NT: LNI in dex

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)	
PS-EK (CL)	SM 3				5	Plaques	6.2*		

* 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
Ixodes uriae	7/854		Macquarie Island
Man		0/77 NT	Australia
Domestic fowl		0/60 NT	
Wallaby		0/30 NT	
Feral pig		0/23 NT	
Horse		0/7 NT	
Cattle		0/30 NT	
Buffalo		0/30 NT	
Tern (Sterna sp.)		0/6 NT	
Royal penguin (E.c.schlegeli)		0/42 * NT	Macquarie Island
Adelie penguin (Pygoscelis adeliae)		0/9 NT	Antarctica

* However 4 of 31 penguin sera were reactive by plaque-reduction test.

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)	SM 3	ic 0.015	Death	4	6.5
Mice (nb)		ip 0.03	Death	4	7.1
Mice (nb)		sc			
Mice (wn)		ic 0.03	Antibody production		
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
No virus detected in adult female Aedes aegypti mosquitoes 1-30 days after intrathoracic inoculation with 2.2 dex LD50 of Taggert virus per mosquito.									

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)
Macquerie Island, Australia

Suspected (Antibody only detected)

Section XIII - References

1. Doherty, R.L., et al. 1975. Am. J. Trop. Med. Hyg. 24:521-526.

Remarks