

| | | |
|-------------------------------------|---------------------------|---------------------------|
| Virus Name: Somone | | Abbreviation: SOMV |
| Status Possible Arbovirus | Select Agent No | SALS Level |
| SALS Basis | | |
| Other Information | | |
| Antigenic Group Somone | | |

SECTION I - Full Virus Name and Prototype Number

| | | |
|---|--|-------------------------------------|
| Prototype Strain Number / Designation DAKArD 4499 | Accession Number | Original Date Submitted 3/5/1986 |
| Family Unclassified | Genus Unclassified | |
| Information From Yves Robin | Address Institut Pasteur, BP 304, Cayenne, French Guyana | |
| Information Footnote | | |

Section II - Original Source

| | | |
|--|--|---|
| Isolated By (name) Yves Robin and Michel Cornet | Isolated at Institute Bandia Forest, Senegal | |
| Host Genus Amblyomma variegatum | Species | Host Age/Stage Nymphs |
| Sex Not Answered | | |
| <u>Isolated From</u> | <u>Isolation Details</u> | |
| Signs and Symptoms of Illness | Arthropod | |
| Time Held Alive before Inoculation | | |
| Collection Method Removed from Xerus erythropus (ground squirrel) | Collection Date 2/1/1968 | |
| Place Collected (Minimum of City, State, Country) Bandia, Senegal | | |
| Latitude 14° 35' N | Longitude 17° 1' W | |
| Macrohabitat Dry savannah; at sea level; tropical, one rainy season (July-October) | Microhabitat | Method of Storage until Inoculated REVCO at -70dC |
| Footnotes | | |

Section III - Method of Isolation

Inoculation Date
8/2/1968

Animal (Details will be in Section 6)
nb mice

| | |
|--|---------------------------------|
| Route Inoculated Intracerebral | Reisolation Not tried |
|--|---------------------------------|

Other Reasons
Virus different from those existing in laboratroy

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) | After Treatment Titer | Control Titer |
| Lipid Solvent (chloroform) | After Treatment Titer <1.5 dex | Control Titer 5.7 dex |
| Lipid Solvent (deoxycholate) | After Treatment Titer | Control Titer |
| Other (formalin, radiation) | | |

Virion Morphology

| | | |
|---|---------------------------------|-----------------------------------|
| Shape | Dimensions <220 nm | |
| Mean nm | Range nm | |
| Measurement Method Millipore filtration | 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

Hemagglutination

Antigen Source

Erythrocytes (species used)

No

SMB ext. by sucrose-acetone

Goose

pH Range

pH Optimum

5.7-6.6

Temperature Range

Temperature Optimum

Remarks

Serologic Methods Recommended

CF

Footnotes

CF test: homologous titer = 32/4

Y. Robin and G. Heme, Institut Pasteur Dakar

DAKArD 4499 did not react with any virus except MRSMP 31 (MTWAPA) [1]

Cross-CF and neutralization test with MRSMP 31 (MTWAPA) gave the following results:

| ANTISERA | CF TEST | |
|-------------------|---------|---------|
| | Somone | Mtwapa |
| Somone (ArD 4499) | 32/4 * | 4/2 |
| Mtwapa (MRSMP 31) | 16/4 | >256/16 |

* antiserum/antigen titer

| ANTISERA | NEUTRALIZATION | |
|-------------------|----------------|------------|
| | Somone | Mtwapa |
| Somone (ArD 4499) | ≥ 2.1 ** | 2.2 |
| Mtwapa (MRSMP 31) | 2.0 | ≥ 3.0 |

** LNI in dex

Results indicate that strain ArD 4499 represents a new virus related to MRSMP 31 (MTWAPA).

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 +/- (g) |
| | | Day (c) | Extent (d) | Titer TCD50/ml (e) | Day (c) | Size (f) | Titer PFU/ml (e) | |
| Vero (CL) | SM 4 | | No CPE | | | | | |
| LLC-MK2 (CL) | | | No CPE | | | | | |
| PS (CL) | | | No CPE | | No Plaques | | | |
| BHK-21 (CL) | | | No CPE | | No Plaques | | | |

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 |
|--|---------------------------|--|---------------------|
| Amblyomma variegatum | 1 | | Bandia, Senegal (3) |
| Boophilus decoloratus | 1 | | Kano Nigeria (2) |

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

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| Known (Virus detected) Senegal, Nigeria |
| Suspected (Antibody only detected) |

Section XIII - References

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| 1. East African Virus Research Institute Annual Report, 1970. P.31. 2. University of Ibadan. Arbovirus Research Project Annual Report. 1970. P.68. 3. Institut Pasteur de Dakar Annual Report. 1964/1968. P.74. 4. Institut Pasteur de Dakar Annual Report. Pp. 8-9. |
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Remarks

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