

**EXOGENOUS SIMIAN TYPE D RETROVIRUSES (SRV-1 and 2)**

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
Macaques	Contact (diaplacentally?)	Generalised lymphadenopathy, wasting, anaemia, lymphopenia, diarrhoea, malignant lymphomas	Yes		<i>In houses</i> <i>in zoos</i>

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Susceptible animal groups Macaques.	
Causative organism Simian retroviruses (SRV) 1 and 2 (Type D-retroviruses).	
Zoonotic potential None.	
Distribution Naturally: Asia; in captivity World-wide.	
Transmission Contact, possibly diaplacentally.	
Incubation period	
Clinical symptoms Generalised lymphadenopathy, neutro-and lymphopenia, wasting, anaemia, diarrhoea. In SRV 1 malignant lymphomas, in SRV 2 abdominal fibromatosis, subcutaneous fibrosarcomas and noma reported.	
Post mortem findings SRV 1: hyperplastic lymphoid follicles in early phases, later changing to follicular atrophy in final stages, occasionally fibrosarcomas, polymyositis. SRV 2: retroperitoneal fibromatosis, subcutaneous fibrosarcomas, nonsuppurative enteritis, sialoadenitis, myositis	
Diagnosis Virology: PCR, immunohistochemistry.	
Material required for laboratory analysis	
Relevant diagnostic laboratories Virus Reference Laboratories, Inc. 7540 Louis Pasteur Road SAN ANTONIO, Tx. 78229 /USA Phone: (210) 614 – 7350 Fax: (210) 614 – 7355 German Primate Center, Kellnerweg 4 D 37077 Göttingen/Germany Phone: 49 (0)551 38510 Fax: 49 (0)551 3851 227	



Treatment
Prevention and control in zoos
Suggested disinfectant for housing facilities
Notification
Guarantees required under EU Legislation
Guarantees required by EAZA Zoos
Measures required under the Animal Disease Surveillance Plan
Measures required for introducing animals from non-approved sources
Measures to be taken in case of disease outbreak or positive laboratory findings
Conditions for restoring disease-free status after an outbreak
Experts who may be consulted Prof.Dr.G.Hunsmann, German Primate Center, Göttingen/Germany
References <ol style="list-style-type: none">1. Brack, M. 1989. Affen – Aids: Übersicht. J. Vet. Med. B 36: 721 – 745.2. Dalakas, M. C., M. G. Gravell, W. T. London, C. Cunningham, and J. L. Sever. 1987. Morphological changes of an inflammatory myopathy in rhesus monkeys with simian acquired immunodeficiency syndrome. Proc. Soc. Exp. Biol. Med. 185: 368 – 376.3. Desrosiers, R. C. 1997. The value of specific pathogen – free rhesus monkey breeding colonies for AIDS research. AIDS Res. Hum. Retrovir. 13: 5 – 6.4. Lackner, A. A., P. F. Moore, P. A. Marx, R. J. Munn, M. B. Gardner, and L. J. Lowenstine. 1990. Immunohistochemical localization of type D retrovirus serotype 1 in the digestive tract of rhesus monkeys with simian AIDS. J. Med. Primatol. 19: 339 – 349.5. Lerche, N. W., R. F. Cotterman, and M. D. Dobson, J. L. Yee, A. N. Rosenthal, and W. M. Heneine. 1997. Screening for simian type – D retrovirus infection in macaques using nested polymerase chain reaction. Lab. Anim. Sci. 47: 263 – 268.6. Malley, A., N. Pangares, S. K. Mayo, M. Zeleny – Pooley, J. V. Torres, E. Benjamin, and M. K. Axthelm. 1993. Type D SRV-2 specific CD8+ and CD4-CD8- cells that regulate virus induced T cell proliferation in Celebes macaques. J. Med. Primatol. 22: 80 – 85.7. Moazed, T. C., and M. E. Thouless. 1993. Viral persistence of simian type D retrovirus (SRV-2 / W) in naturally infected pigtailed macaques (<i>Macaca nemestrina</i>). J. Med. Primatol. 22: 382 – 389.8. Pilcher, K. Y., N. Avery, S. M. Shiigi, N. Pangares, A. Malley, M. K. Axthelm, and C. A. Machida. 1994. Polymerase chain reaction detection of type D simian retrovirus proviral DNA from infected macaques. J. Virol. Methods 50: 75 – 86.9. Tsai, C. C., K. E. Follis, K. Snyder, S. Windsor, M. E. Thouless, L. Kuller, and W. R. Morton. 1990. Maternal transmission of type D simian retrovirus (SRV-2) in pigtailed macaques. J. Med. Primatol. 19: 203 – 216.10. Wang, Y., and M. E. Thouless. 1996. Use of polymerase chain reaction for diagnosis of type D simian retrovirus infection in macaque blood. Lab. Anim. Sci. 46: 187 – 192.