



# Salmon Anemia Virus (16F4): sc-66102

## BACKGROUND

Salmon Anemia Virus (SAV) causes infectious salmon anemia (ISA), a viral disease of Atlantic salmon (*Salmo salar*) which causes severe anemia in infected fish. The infected fish develop pale gills and may swim close to the water surface, gulping for air. The liver and spleen also become swollen and congested before these organs die off. The circulatory system may stop working, and the blood may be contaminated with dead blood cells. Red blood cells still present in infected fish often burst easily and the numbers of immature and damaged blood cells increase rapidly. SAV is an enveloped virus, approximately 45 to 140 nm in diameter, that can be cultured in the Atlantic salmon head kidney (SHK1) cell line. SAV infects cells via the endocytic pathway and, like many other enveloped viruses, it contains a receptor-destroying enzyme. The virus is similar to the influenza virus, and transmission occurs by contact with infected fish or their secretions.

## REFERENCES

1. Giray, C., Opitz, H.M., MacLean, S. and Bouchard, D. 2005. Comparison of lethal versus non-lethal sample sources for the detection of infectious Salmon Anemia Virus (ISAV). *Dis. Aquat. Org.* 66: 181-185.
2. Bergan, V., Steinsvik, S., Xu, H., Kileng, O. and Robertsen, B. 2006. Promoters of type I interferon genes from Atlantic salmon contain two main regulatory regions. *FEBS J.* 273: 3893-3906.
3. de Groot, R.J. 2006. Structure, function and evolution of the hemagglutinin-esterase proteins of corona- and toroviruses. *Glycoconj. J.* 23: 59-72.
4. Millard, P.J., Bickerstaff, L.E., LaPatra, S.E. and Kim, C.H. 2006. Detection of infectious haematopoietic necrosis virus and infectious salmon anaemia virus by molecular padlock amplification. *J. Fish Dis.* 29: 201-213.
5. Gustafson, L., Ellis, S., Robinson, T., Marengi, F. and Endris, R. 2006. Efficacy of emamectin benzoate against sea lice infestations of Atlantic salmon, *Salmo salar* L.: evaluation in the absence of an untreated contemporary control. *J. Fish Dis.* 29: 621-627.
6. Kibenge, F.S., Kibenge, M.J., Groman, D. and McGeachy, S. 2006. *In vivo* correlates of infectious Salmon Anemia Virus pathogenesis in fish. *J. Gen. Virol.* 87: 2645-2652.
7. Kjøglum, S., Larsen, S., Bakke, H.G. and Grimholt, U. 2006. How specific MHC class I and class II combinations affect disease resistance against infectious salmon anaemia in Atlantic salmon (*Salmo salar*). *Fish Shellfish Immunol.* 21: 431-441.
8. Munir, K. 2006. Retraction. Characterization of Chinook head salmon embryo phenotypes of infectious Salmon Anemia Virus by real-time RT-PCR. *J. Vet. Sci.* 7: 307.
9. Watanabe, K., Karlsen, M., Devold, M., Isdal, E., Litlabo, A. and Nylund, A. 2006. Virus-like particles associated with heart and skeletal muscle inflammation (HSMI). *Dis. Aquat. Org.* 70: 183-192.

## SOURCE

Salmon Anemia Virus (16F4) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 8-23 of Salmon Anemia Virus.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Salmon Anemia Virus (16F4) is recommended for detection of peptides of putative hemagglutinin of Salmon Anemia Virus origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.