Vir 119

Technical Datasheet

Virsin 119 is a live attenuated vaccine containing at least $10^{4.5}$ TCID50 per dose of a mild Avian Reovirus strain (S1133) grown on SPF chicken embryo fibroblast cell cultures.

The S1133 strain: was grown serially 235 times in the chorioallantoic membrane (CAM) at 37° C and then 65 times in chicken embryo fibroblast (CEF) at 32° C An additional 135 passages were carried out at 37° C in CEF (van der Heide et al., 1983).

In 1957, while studying the pathogenesis of Mycoplasmas synoviae, Dr. Norman Olson et al. (Olson et al., 1957), at West Virginia University, reported the isolation of an agent producing synovitis from lesions in broilers. Avian reoviruses are ARV is classified in the *Orthoreovirus* genus within the *Reoviridae* family (Attoui and others 2012).

Reoviruses are double-stranded RNA viruses and are highly resistant to both physical and chemical inactivation, as well as low pH. These viruses are very similar to Infectious Bursal Disease Virus and are similarly resistant to many common disinfectants. Reoviruses will remain infective in contaminated environments for long periods of time. When held in a culture, reoviruses remained viable for almost a year when held at 22°C. They are important pathogens of birds that can cause considerable economic losses in the poultry industry (Rosenberger et al., 1989). These viruses were initially discovered as pathogenic agents that induced tenosynovitis in young chickens (Olson, 1978), and were subsequently found to be ubiquitous among poultry flocks.

Control of reovirus-induced Viral Arthritis can be achieved by vaccination of broiler breeders with a combination of live and/or inactivated vaccines with maternal immunity passed on to progeny for early protection against field challenge. In addition, autogenous vaccines have been produced, on a company by company basis, with field isolates associated with runting and stunting syndrome (RSS) and/or viral arthritis/tenosynovitis.

References

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