

College of Veterinary Medicine

Comparative Medicine 2407 River Drive, Rm A205 Knoxville, TN 37996-4543 Phone: 865-974-5576

Fax: 865-974-5640 E-mail: www.utk.edu

Virus	Titer of Stock (TCID ₅₀)	Titer Post PBS Treatment (TCID ₅₀) (1:200 dilution of original stock + dialysis; 4 replicates)	Titer Post Sagewash Treatment (1:200 dilution of original stock + dialysis; 4 replicates)	Titer Post Clorox Treatment (1:200 dilution of original stock + dialysis; 4 replicates)
Canine Parainfluenza Virus (Paramyxoviridae)	10 ^{7.5} /mL	10 ^{4.5} /mL	No growth in undiluted sample	No growth in undiluted sample
Canine Distemper Virus (Paramyxoviridae)	10 /mL	10 /mL	No growth in undiluted sample	No growth in undiluted sample
Canine Herpesvirus	10 ^{6.2} /mL	10 ^{3.2} /mL	No growth in undiluted sample	No growth in undiluted sample
Canine Adenovirus	10 ^{8.2} /mL	10 ^{6.8} /mL	No growth in undiluted sample	No growth in undiluted sample
Influenza Virus (H1N1) (Orthomyxoviridae)	10 ^{6.5} /mL	10 ^{1.5} /mL	No growth in undiluted sample	No growth in undiluted sample
Bovine Coronavirus (Coronaviridae group II, same group as Canine Respiratory Coronavirus)	10 ⁶³ /mL	10 ^{3.7} /mL	No growth in undiluted sample	No growth in undiluted sample

Sagewash was evaluated for the inactivation of the canine respiratory viruses with the same protocol described for the previous study. Inactivation ranged from 6.8-1.5 logs, based on the titers of the control samples (diluted 1:100 with PBS, treated with PBS and dialyzed). The enveloped RNA viruses are not very stable in the environment (ie canine distemper virus and influenza virus) and did not survive the PBS control procedure well. Several attempts were made to increase the initial titers of these viruses, but increasing the titers had only minimal effects on the outcome of the study. Despite this difficulty, the Sagewash treatment performed as well as a 3% solution of Clorox for the inactivation of canine respiratory viruses.

Melissa Kennedy, DVM, PhD, DACVM Director, Clinical Virology Associate Professor Department of Comparative Medicine UTCVM Knoxville, TN 37996-4543