

Supporting Information for

The basis of peracetic acid (PAA) inactivation mechanisms for rotavirus and Tulane virus under conditions relevant for vegetable sanitation

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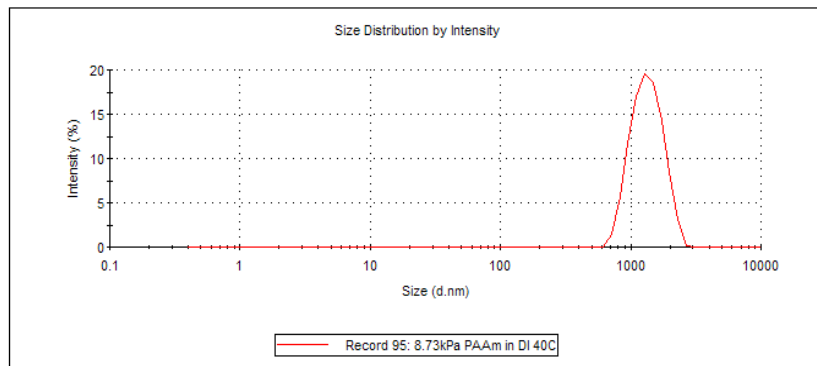


Figure 1Sa. Dynamic light scattering measurement of Tulane virus in PAA solution at pH 3

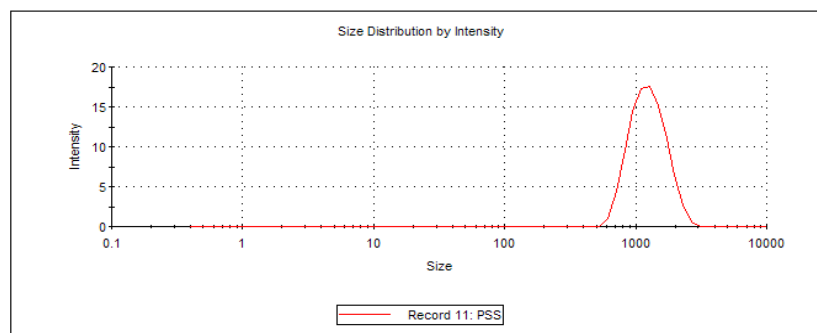


Figure 1Sb. Dynamic light scattering measurement of Tulane virus in PAA-free solution at pH 3

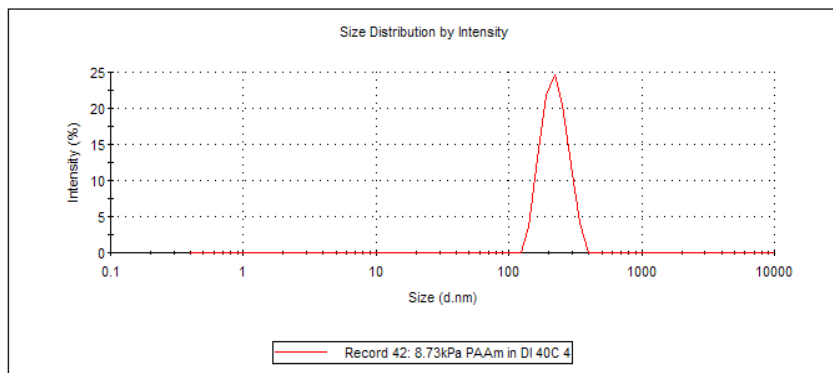


Figure 1Sc. Dynamic light scattering measurement of rotavirus in PAA solution at pH 3

Table 1S. Comparison of results from binding assay using untreated or PAA-exposed RV with either untreated or neuraminidase-treated PGM-MBs.

CT (ppm×min)	Log ₁₀ NSP3 copy/μl quantified after binding with untreated PGM-MBs	Log ₁₀ NSP3 copy/μl quantified after binding with neuraminidase treated PGM-MBs	% of loss of binding due to sialic acid digestion in PGM-MBs	Log ₁₀ loss of binding due to sialic acid digestion in PGM-MBs
0	6.72 ± 0.05	5.35 ± 0.14	96 % ± 1%	1.4 ± 0.14
19	6.34 ± 0.05	5.96 ± 0.04	58 % ± 4 %	0.4 ± 0.04
38	6.27 ± 0.07	5.88 ± 0.08	59 % ± 7 %	0.4 ± 0.08
57	6.19 ± 0.03	5.92 ± 0.11	44 % ± 14 %	0.3 ± 0.11

Average and standard deviation are shown for 3 experiments.

Table 2S. Reduction of naked viral genome without capsids exposed to PAA, compared to untreated viral genome.

CT (ppm×min)	Log ₁₀ reduction of TV NSP gene copy number	Log ₁₀ reduction of RV VP7 gene copy number
0.5	0.49 ± 0.07	0.25 ± 0.03
2.3	0.58 ± 0.05	0.54 ± 0.07
4.5	0.61 ± 0.06	0.67 ± 0.07
9.4	1.02 ± 0.12	0.78 ± 0.06

Average and standard deviation are shown for 3 experiments.