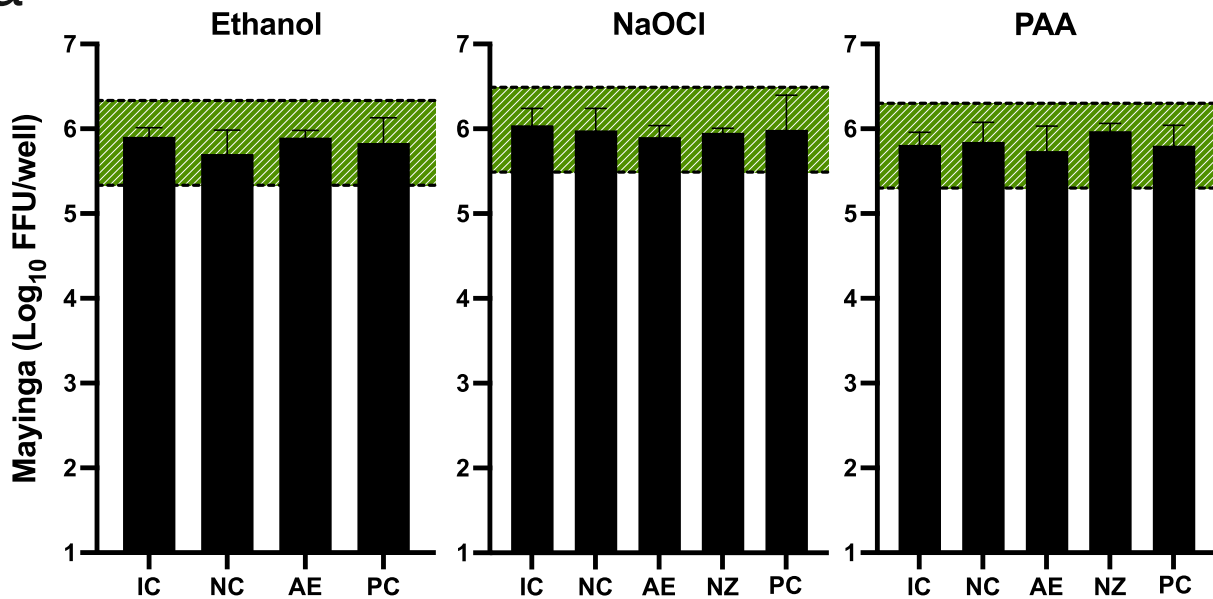


a



b

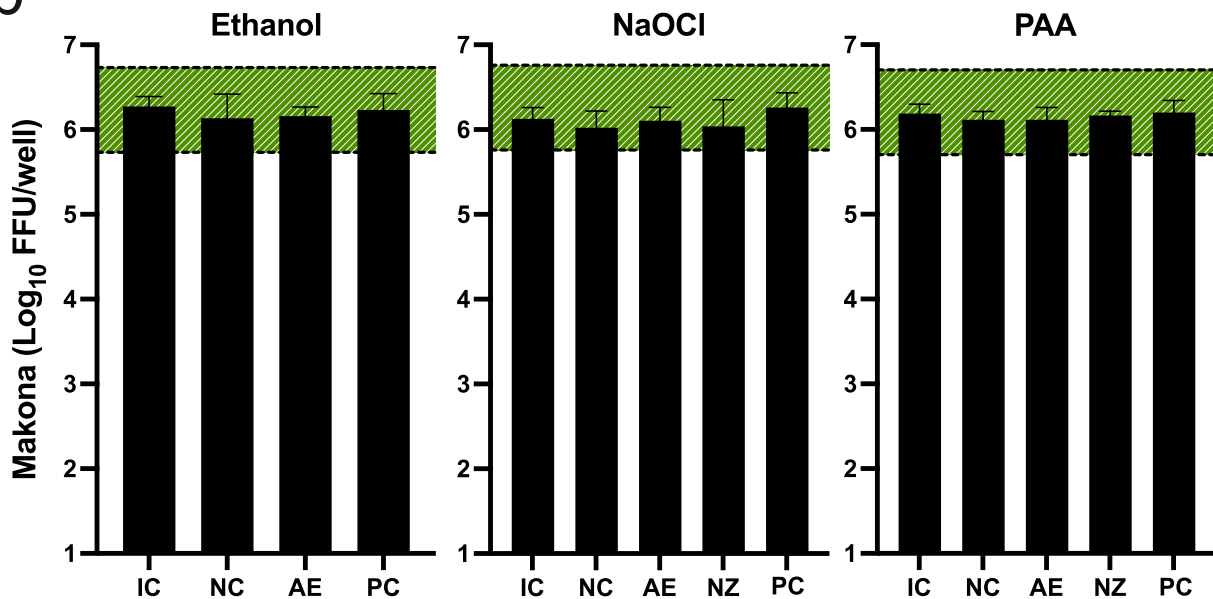
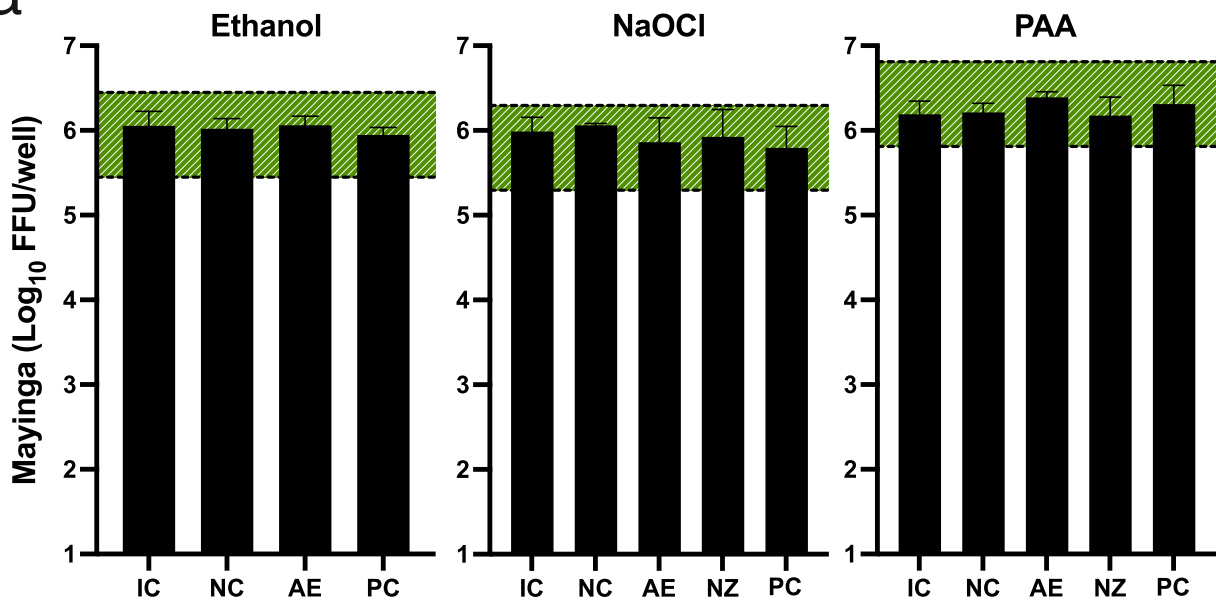


Figure S1: Overview of controls. Internal controls applied to assess experimental validity for inactivation of EBOV Mayinga in a) tripartite soil and b) donor blood. IC: interference control disinfectant, NC: interference control PBS, AE: after-effects control, NZ: neutralizer control, PC: positive control. Dashed green: zone of experimental validity compared to PC. Bars indicate mean $\pm$ SD of 2 independent experiments with n=4.

a



b

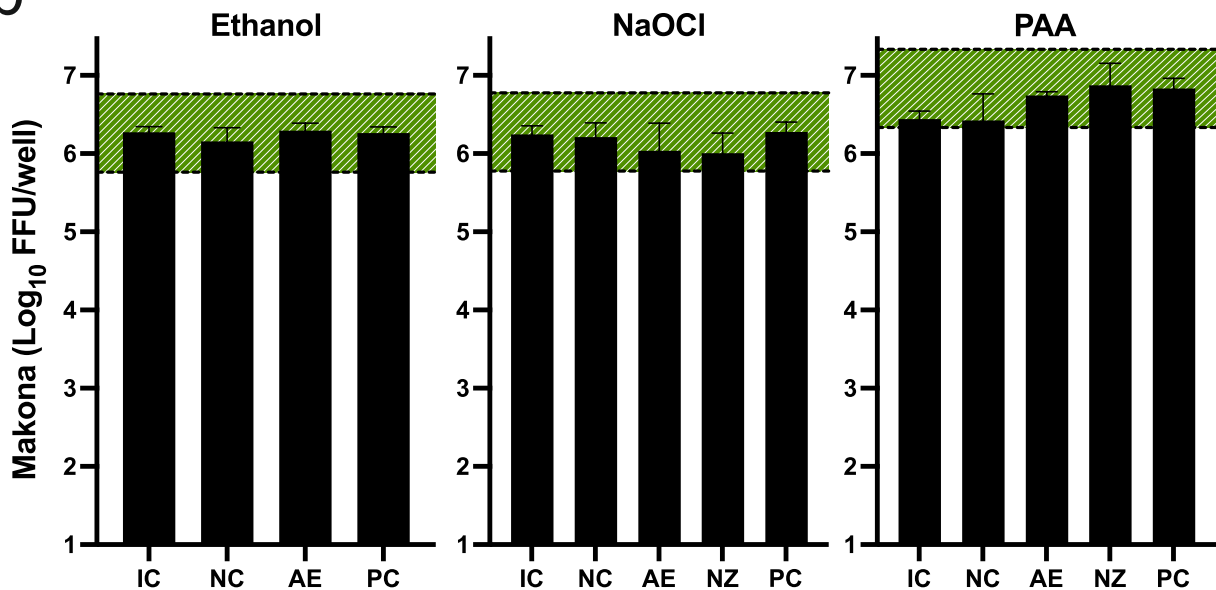


Figure S2: Overview of controls. Internal controls applied to assess experimental validity for inactivation of EBOV Makona in a) tripartite soil and b) donor blood. IC: interference control disinfectant, NC: interference control PBS, AE: after-effects control, NZ: neutralizer control, PC: positive control. Dashed green: zone of experimental validity compared to PC. Bars indicate mean $\pm$ SD of 2 independent experiments with n=4.

	Mayinga			Makona		
	Titer (Log ₁₀ FFU)	±SD	Reduction (Log ₁₀)	Titer (Log ₁₀ FFU)	±SD	Reduction (Log ₁₀)
70% EtOH	0,95	0,00	<u>-4,88</u>	0,95	0,00	<u>-5,28</u>
40% EtOH	3,79	0,28	-2,04	5,47	0,55	-0,76
Interference EtOH	5,91	0,09	0,07	6,27	0,10	0,04
Interference PBS	5,70	0,24	-0,13	6,13	0,25	-0,10
After Effects control	5,90	0,07	0,06	6,16	0,09	-0,07
Virus control	5,83	0,26	0,00	6,23	0,17	-
0.5% NaOCl	0,95	0,00	<u>-5,03</u>	0,95	0,00	<u>-5,30</u>
0.05% NaOCl	2,20	0,24	-3,78	1,35	0,08	<u>-4,91</u>
Interference NaOCl	6,04	0,17	0,05	6,12	0,12	-0,14
Interference PBS	5,98	0,22	-0,01	6,02	0,17	-0,24
After Effects control	5,90	0,12	-0,09	6,10	0,14	-0,16
Neutralizer control	5,95	0,05	-0,04	6,03	0,27	-0,22
Virus control	5,99	0,35	0,00	6,26	0,15	-
0.2% PAA	0,95	0,00	<u>-4,85</u>	0,95	0,00	<u>-5,25</u>
0.02% PAA	2,78	0,13	-3,02	2,91	0,19	-3,30
Interference PAA	5,81	0,13	0,01	6,19	0,10	-0,02
Interference PBS	5,85	0,20	0,05	6,11	0,08	-0,09
After effects control	5,74	0,26	-0,06	6,11	0,13	-0,09
Neutralizer control	5,97	0,08	0,17	6,17	0,04	-0,03
Virus control	5,80	0,21	0,00	6,20	0,12	-

Table S1: Summary of the Log₁₀ fold reduction of Mayinga and Makona after treatment with EtOH, NaOCl, PAA, and all internal controls in tripartite soil. Virucidal conditions are denoted in bold letters and underlined.

	Mayinga			Makona		
	Titer (Log ₁₀ FFU)	±SD	Reduction (Log ₁₀)	Titer (Log ₁₀ FFU)	±SD	Reduction (Log ₁₀)
70% EtOH	0,95	0,00	<u>-4,99</u>	0,95	0,00	<u>-5,31</u>
40% EtOH	1,95	1,00	-3,99	1,38	0,43	<u>-4,88</u>
Interference EtOH	6,06	0,15	0,11	6,27	0,06	0,01
Interference PBS	6,02	0,10	0,07	6,16	0,15	-0,10
After Effects control	6,06	0,09	0,11	6,29	0,08	0,03
Virus control	5,95	0,08	0,00	6,26	0,07	0,00
0.5% NaOCl	0,95	0,00	<u>-4,84</u>	0,95	0,00	<u>-5,32</u>
0.05% NaOCl	5,13	0,26	-0,67	5,12	0,07	-1,15
Interference NaOCl	5,99	0,15	0,19	6,24	0,09	-0,03
Interference PBS	6,06	0,02	0,27	6,21	0,16	-0,06
After Effects control	5,86	0,25	0,07	6,04	0,30	-0,24
Neutralizer control	5,92	0,28	0,13	6,01	0,22	-0,27
Virus control	5,79	0,22	0,00	6,28	0,11	0,00
0.2% PAA	0,95	0,00	<u>-5,36</u>	0,95	0,00	<u>-5,88</u>
0.02% PAA	3,73	0,11	-2,58	3,75	0,09	-3,08
Interference PAA	6,19	0,13	-0,12	6,44	0,09	-0,39
Interference PBS	6,21	0,09	-0,10	6,42	0,29	-0,41
After effects control	6,39	0,06	0,08	6,74	0,04	-0,09
Neutralizer control	6,17	0,19	-0,14	6,87	0,25	0,04
Virus control	6,31	0,19	0,00	6,83	0,11	0,00

Table S2: Summary of the Log₁₀ fold reduction of Mayinga and Makona after treatment with EtOH, NaOCl, PAA, and all internal controls in whole blood. Virucidal conditions are denoted in bold letters and underlined.

a

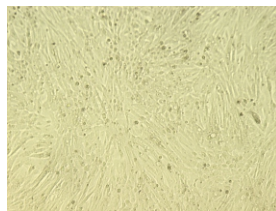
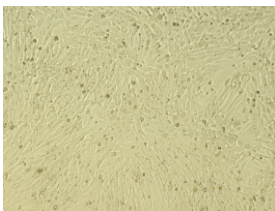
Mayinga

Makona

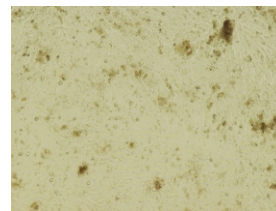
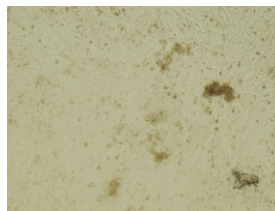
Mayinga

Makona

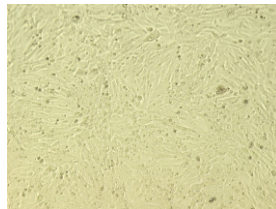
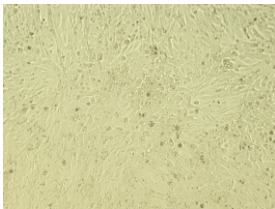
70% ethanol



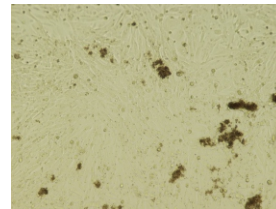
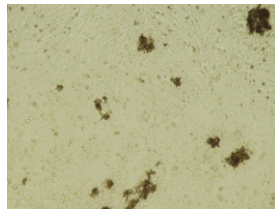
70% ethanol



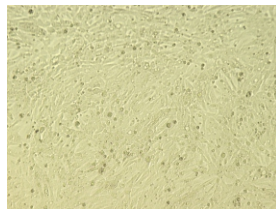
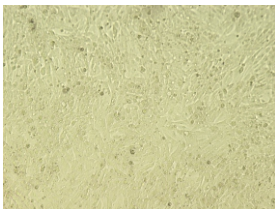
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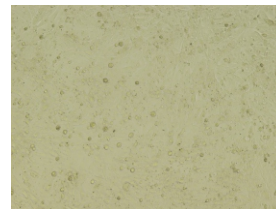
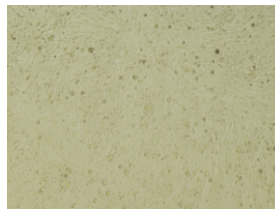
Toxicity control



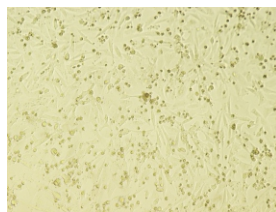
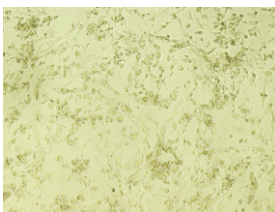
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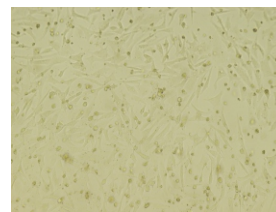
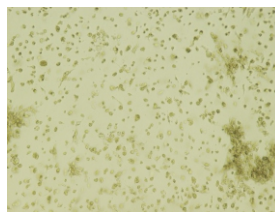
Cell control



Positive control



Positive control



Tripartite soil

Whole blood

b

Mayinga

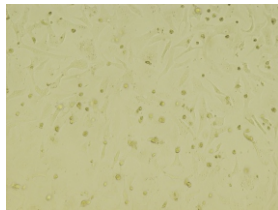
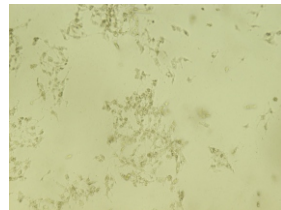
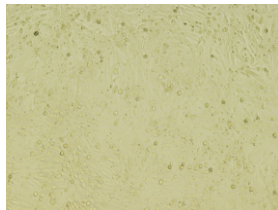
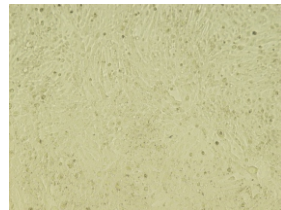
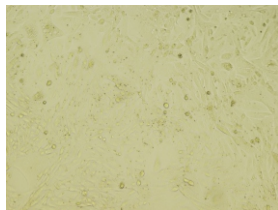
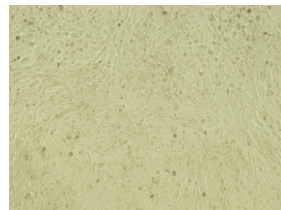
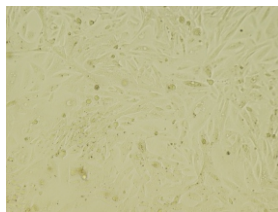
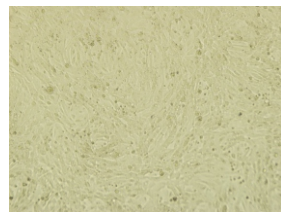
Makona

0.5% NaOCl

Toxicity control

Cell control

Positive control



Tripartite soil

Mayinga

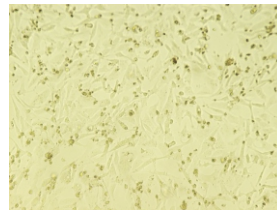
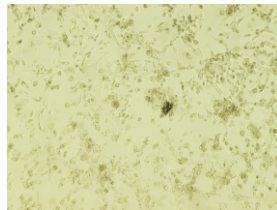
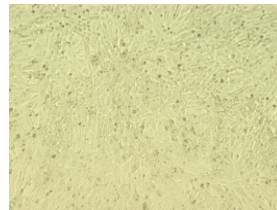
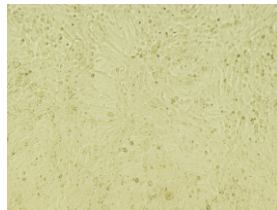
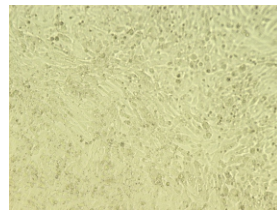
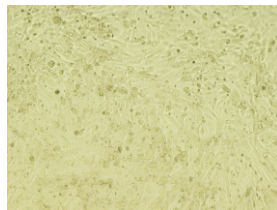
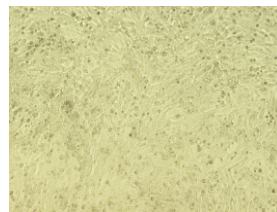
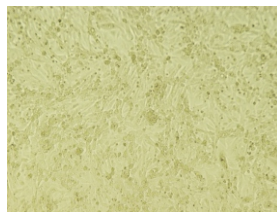
Makona

0.5% NaOCl

Toxicity control

Cell control

Positive control



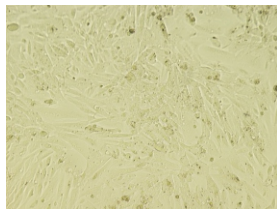
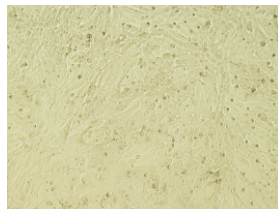
Whole blood

C

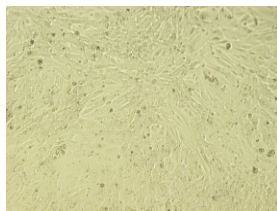
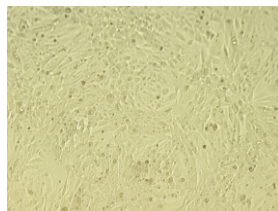
Mayinga

Makona

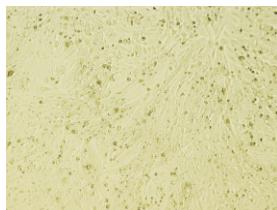
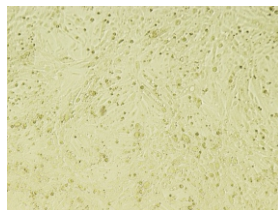
0.2% PAA



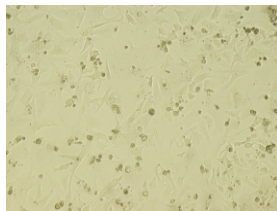
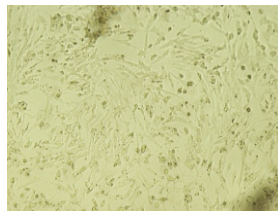
Toxicity control



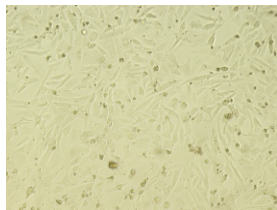
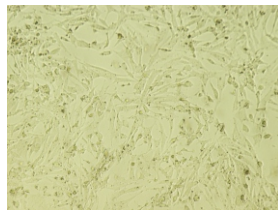
Cell control



Interference control



Positive control

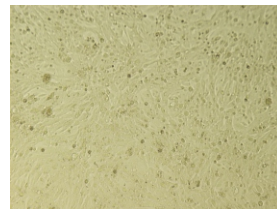
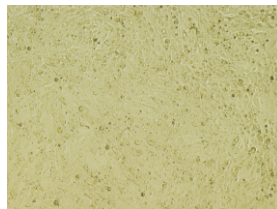


Tripartite soil

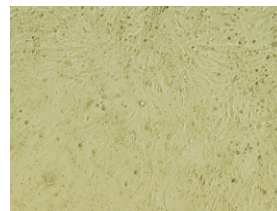
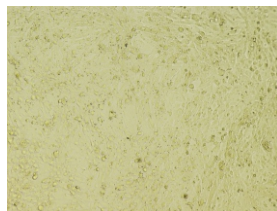
Mayinga

Makona

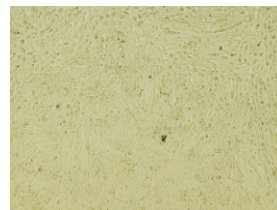
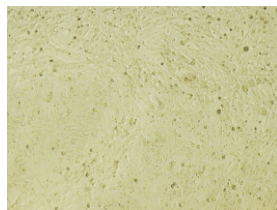
0.2% PAA



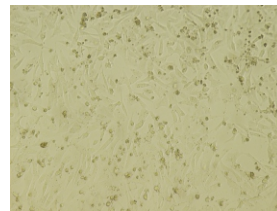
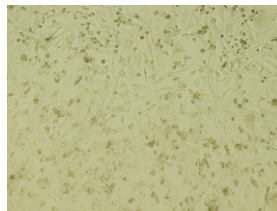
Toxicity control



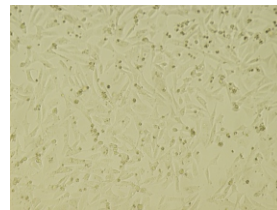
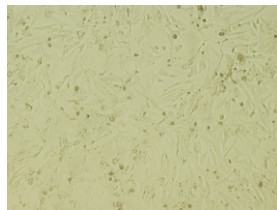
Cell control



Interference control



Positive control



Whole blood

Figure S3: Representative examples of CPE assessment in complete kill controls by microscopy.

No CPE is observed in complete kill controls after 7- day incubation with EBOV treated with a) 70 % ethanol, b) 0.5 % NaOCl, and c) 0.2 % PAA for 30 s. CPE is observed only in positive controls, as expected, and interference controls for PAA. Original magnification: 10x.

	Tripartite Soil				Blood		
	d0	d7	ΔCt (d0-d7)		d0	d7	ΔCt (d0-d7)
70% EtOH	28.28	29.38	-1.10		30.025	32.51	-2.485
	28.82	29.54	-0.73		29.345	31.5	-2.155
	29.00	30.19	-1.19		32.055	35.215	-3.16
Positive control	27.22	19.22	8.00		27.275	18.775	8.5
	d0	d7	ΔCt (d0-d7)		d0	d7	ΔCt (d0-d7)
0.5% NaOCl	34.115	33.425	0.69		29.425	30.4	-0.975
	33.86	34.84	-0.98		28.895	30.055	-1.16
	36.285	35.08	1.205		29.42	29.65	-0.23
Positive control	29.7	18.59	11.11		27.705	18.87	8.835
	d0	d7	ΔCt (d0-d7)		d0	d7	ΔCt (d0-d7)
0.2% PAA	27.045	27.745	-0.7		27.105	28.75	-1.645
	27.8825	27.8225	0.06		27.37	28.9075	-1.5375
	27.1925	27.86	-0.6675		27.3825	29.5	-2.1175
Interference control	27.0525	20.235	6.8175		26.925	19.8775	7.0475
Positive control	26.8	19.79	7.01		27.2325	20.455	6.7775

Table S3a: Summary of EBOV Mayinga replication in complete kill controls. Inactivation of EBOV was assessed by qRT-PCR in complete kill control supernatant. Delta Ct values ≥ 3 were considered indicative of active replication.

	Tripartite Soil				Blood		
	d0	d7	ΔCt (d0-d7)		d0	d7	ΔCt (d0-d7)
70% EtOH	26.85	27.60	-0.75		27.685	30.32	-2.635
	26.67	26.95	-0.28		29.23	32.52	-3.29
	27.56	28.03	-0.47		29.345	32	-2.655
Positive control	26.41	17.53	8.88		27.43	17.74	9.69
	d0	d7	ΔCt (d0-d7)		d0	d7	ΔCt (d0-d7)
0.5% NaOCl	34.055	35.375	-1.32		29.875	30.34	-0.465
	35.12	34.62	0.5		30.235	30.73	-0.495
	36.99	35.005	1.985		30.015	29.995	0.02
Positive control	26.85	19.46	7.39		26.945	17.5	9.445
	d0	d7	ΔCt (d0-d7)		d0	d7	ΔCt (d0-d7)
0.2% PAA	25.99	26.4875	-0.4975		26.3075	27.99	-1.6825
	25.9675	26.64	-0.6725		26.1625	27.1	-0.9375
	26.1975	26.63	-0.4325		27.35	27.0325	0.3175
Interference control	26.3125	18.065	8.2475		26.92	17.045	9.875
Positive control	26.055	17.655	8.4		26.51	17.01	9.5

Table S3b: Summary of EBOV Makona replication in complete kill controls. Inactivation of EBOV was assessed by qRT-PCR in complete kill control supernatant. Delta Ct values ≥ 3 were considered indicative of active replication.