TEST REPORT

22/12/2020

Test report L20/1339bMV.1

Evaluation of the effectiveness of

ANTIBACTERIAL HAND GEL FO 28-00004

Test virus: modified vaccinia virus Ankara (MVA)

Method: EN 14476:2013+A2:2019 (clean conditions)

quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in human medicine (phase 2/ step 1)

Sponsor:
Zidac Laboratories Ltd
Unit 5, Merlin Park, Airport Service Road
GB – PORTSMOUTH PO3 5FU

Norderoog 2, DE - 28259 Bremen
Tel.: +49 40-557631-0, Fax: +49 40-557631-11
info@brillhygiene.com, http://www.brillhygiene.com

1. Identification of test laboratory

Dr. Brill + Partner GmbH Institute for Hygiene and Microbiology, Norderoog 2, DE - 28259 Bremen

2. Identification of sample

Manufacturer	Zidac Laboratories Ltd
Name of product	ANTIBACTERIAL HAND GEL FO 28-00004
Confirmation no.	219368
Product diluent recommended by the manufacturer	-
Batch number	-
Application	hand sanitizer
Production date	-
Expiry date	-
Active compound (s) (100 g)	ethanol at 70.0 %
Appearance, odour	clear, colorless gel product specific
pH-values	undiluted: 7.08 (20 °C)
Storage conditions	room temperature in the dark (area with restricted access)
Date of arrival in the laboratory	17/08/2020

3. Materials

3.1 Culture medium and reagents

- Eagle`s Minimum Essential Medium with Earle`s BSS (EMEM, Biozym Scientific GmbH, catalogue no. 880120)
- fetal calf serum (Thermo Fisher, article no. CH30160.02)
- 1.4 % formaldehyde solution (dilution of Roti®-Histofix 4 %, Carl Roth GmbH)
- Aqua bidest. (SG ultrapure water system, type Ultra Clear; serial no. 86996-1)
- PBS (Invitrogen, article no. 18912-014)
- BSA (Sigma-Aldrich-Chemie GmbH, article no. CA-2153).

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3.2 Virus and cells

The modified vaccinia virus Ankara (MVA) originated from Dr. Manteufel, Institut für Tierhygiene und Öffentliches Veterinärwesen, DE - 04103 Leipzig. Before inactivation assays, virus had been passaged four times in *BHK 21-cells* (Baby Hamster Kidney).

BHK 21-cells (passage 17) originated from the Leibniz Institute, DSMZ-German Collection of Microorganisms and Cell Cultures GmbH, DE - 38124 Braunschweig.

The cells were inspected regularly for morphological alterations and for contamination by mycoplasmas. No morphological alterations of cells and no contamination by mycoplasmas could be detected.

3.3 Apparatus, glassware and small items of equipment

- CO_2 incubator
- Agitator (Vortex Genie Mixer, type G 560E)
- pH measurement 315i (WTW, article no. 2A10-100)
- Centrifuge (Sigma-Aldrich-Chemie GmbH, type 113)
- Microscope (Olympus, type CK 30)
- Centrifuge 5804 R (Eppendorf AG)
- Water bath (JULABO, Julabo U 3)
- Adjustable and fixed-volume pipettes (Eppendorf AG)
- Polysterol 96-well microtitre plate (Nunc GmbH & Co. KG, Wiesbaden)
- Cell culture flask (Nunc GmbH & Co. KG, Wiesbaden)
- Sealed test tubes (Sarstedt AG & Co., Nümbrecht).

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4. Experimental conditions

Test temperature	20 °C ± 1.0 °C
Concentration of test product	undiluted (80.0 %) and as 50.0 % and 10.0 % (demonstration of non-active range) solutions
Appearance of product dilutions	no precipitation
Contact times	30 seconds
Interfering substance	0.3 g/l bovine serum albumin (clean conditions, EN 14476)
Procedure to stop action of disinfectant	immediate dilution
Diluent	Aqua bidest.
Stability of product in the mix with virus and interfering substance (80.0 % solution)	no clouding, no precipitation
Virus strain	modified vaccinia virus Ankara (MVA) (ATCC VR-1508)
Date of testing	12/11/2020 – 22/12/2020
End of testing	22/12/2020

5. Methods

5.1 Preparation of test virus suspension

For preparation of test virus suspension, *BHK 21-cells* were cultivated with MEM and 10 % or 2 % fetal calf serum.

Cells were infected with a multiplicity of infection of 0.1. After cells showed a cytopathic effect, they were subjected to a freeze/thaw procedure followed by a low speed centrifugation in order to sediment cell debris. After aliquotation, test virus suspension was stored at – 80 °C.

5.2 Preparation of disinfectant (dilutions)

The test product was tested undiluted. Due to the addition of interfering substance and test virus suspension an 80.0 % solution resulted.

Furthermore, the product was evaluated as 50.0 % and 10.0 % solutions (demonstrating of non-active range). These solutions were prepared with Aqua bidest. immediately before the inactivation tests.

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5.3 Infectivity assay

Infectivity was determined as endpoint titration according to EN 5.5 transferring 0.1 ml of each dilution into eight wells of a microtitre plate to 0.1 ml of freshly splitted cells (10-15 x 10^3 cells per well), beginning with the highest dilution. Microtitre plates were incubated at 37 °C in a 5 % CO_2-atmosphere. The cytopathic effect was read by using an inverted microscope. Calculation of the infective dose $TCID_{50}$/ml was calculated with the method of Spearman (2) and Kärber (3).

5.4 Calculation and verification of virucidal activity

The virucidal activity of the test disinfectant was evaluated by calculating the decrease in titre in comparison with the control titration without disinfectant. The difference is given as reduction factor (RF).

According to the EN 14476, a disinfectant or a disinfectant solution at a particular concentration is having virus-inactivating efficacy if the titre is reduced at least by 4 $\log_{10}$ steps within the recommended exposure period. This corresponds to an inactivation of ≥ 99.99 %.

5.5 Inactivation assay (end point titration)

Determination of virucidal activity has been carried out according to EN 5.5.

Immediately at the end of a chosen contact time, activity of the disinfectant was stopped by dilution to 10^{-8}.

Titrations of the virus control were performed at the beginning of the test and after the longest exposure time (EN 5.5.7). One part by volume of test virus suspension was mixed with one part interfering substance and eight parts by volume of WSH or Aqua bidest. (RTU products).

Furthermore, a cell control (only addition of medium) was incorporated.

Inactivation tests were carried out in sealed test tubes in a water bath at 20 °C ± 1.0 °C. Aliquots were retained after appropriate exposure times and residual infectivity was determined.

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5.6 Inactivation assay following the large volume plating method (LVP)

Following the large volume plating method (EN 5.5.4.3) the inactivation assays were further diluted 1:5,000 in cell culture medium. The total volume was added (without any further dilution) to the permissive cells. By introducing such a huge dilution, it is possible to eliminate cytotoxicity of the test product in order to demonstrate a 4 $\log_{10}$ reduction of virus titre. Calculation of virus titre follows formula of Taylor or Poisson (EN B.3). This method is necessary for those products which demonstrate a great cytotoxicity.

12.5 µl of the inactivation assay were added to 62.5 ml medium and then the total volume was distributed in 6 microtitre plates (108 µl / well, 576 wells total). After 5 days of inoculation cultures were observed for cytopathic effects.

5.7 Determination of cytotoxicity

Determination of cytotoxicity was performed according to EN 5.5.4.1.

5.8 Cell sensitivity to virus

For the control of cell sensitivity to virus two parts by volume of water were mixed with eight parts by volume of the lowest apparently non-cytotoxic dilution of the product. These mixtures or PBS as control were added to a volume of double concentrated cell suspension. After 1 h at 37 °C the cells were centrifuged and re-suspended in cell culture medium (EN 5.5.4.2b).

Finally, a comparative titration of the test virus suspension was performed on the pre-treated (disinfectant) and non-pre-treated (PBS) cells as described above.

5.9 Control of efficacy for suppression of disinfectant's activity

Furthermore, a control of efficiency for suppression of disinfectant's activity was included (EN 5.5.5).

5.10 Reference virus inactivation test

As reference for test validation a 0.7 % formaldehyde solution according to EN 5.5.6 was included. 5, 15, 30 and 60 minutes were chosen as contact times. In addition, cytotoxicity of formaldehyde test solution was determined based on EN 5.5.6.2 with dilutions up to 10^{-5}.

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6. Verification of the methodology

The following criteria as mentioned in EN 5.7 were fulfilled:

a) The titre of the test virus suspension allowed the determination of a ≥ 4 $\log_{10}$ reduction (maximal virus reduction ≥ 4.21 ± 0.33, LVP)

b) The test product (80.0 %) showed cytotoxicity in the 1:1,000 dilutions thus allowing the detection of a 4 $\log_{10}$ reduction of virus titre.

c) The difference of the logarithmic titre of the virus control minus the logarithmic titre of the test virus in the reference inactivation test (see EN 5.7b) was ≥ 1.88 ± 0.57 (between 0.75 – 3.5) after 5 min and ≥ 2.38 ± 0.51 (between 2.0 – ≥ 4.0) after 15 min for MVA.

d) The comparative titration on pre-treated (disinfectant) and non-pre-treated (PBS) cells showed no significant difference (< 1 $\log_{10}$; EN 5.7) of virus titre: 6.88 ± 0.45 (PBS, LVP) versus 7.00 ± 0.38 (1:5,000 dilutions of disinfectant as 80.0 % solution, LVP) $\log_{10}$ $TCID_{50}$/ml.

e) The control of efficacy for suppression of disinfectant's activity (80.0 %) showed no decrease (≤ 0.5 $\log_{10}$; EN 5.5.5.1) in virus titre (6.63 ± 0.25 versus 6.75 ± 0.33 $\log_{10}$ $TCID_{50}$/ml).

f) One concentration demonstrated a 4 $\log_{10}$ reduction and (at least) one concentration demonstrated a $\log_{10}$ reduction of less than 4.

Since all criteria according EN 5.7 were fulfilled, examination with MVA according to EN 14476 is valid.

7. Results

Results of examination are shown in tables 1 to 9. Tables 1 to 7 demonstrate the raw data, whereas tables 8 (a+b) and 9 give a summary of results.

Testing the 50.0 % solution, no residual virus could be detected after an exposure time of 30 seconds using the end point dilution method (table 1). Due to cytotoxicity a 4 $\log_{10}$ reduction could not be shown.

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The test product as 10.0 % solution was not active within 30 seconds of exposure time (table 2).

In parallel the large volume plating method (LVP) was introduced testing the undiluted test product in an 80.0 % assay with 30 seconds of exposure time. The mean virus titre was $\log_{10}$ $TCID_{50}$/ml = 6.75 ± 0.33 (table 6).

The undiluted test product in an 80.0 % assay was active after 30 seconds of exposure time (table 7). Since residual virus was found in 4 of 576 cell culture units at this time point, the result according to the formula of Taylor was 2.67 $\log_{10}$ $TCID_{50}$. The reduction factor was therefore 4.08 ± 0.33 (6.75 ± 0.33 $\log_{10}$ $TCID_{50}$ minus 2.67 $\log_{10}$ $TCID_{50}$). This corresponded to an inactivation of ≥ 99.99 %.

8. Conclusion

The hand sanitizer ANTIBACTERIAL HAND GEL FO 28-00004 tested undiluted demonstrated activity against MVA after an exposure time of 30 seconds under clean conditions. Therefore, the hand sanitizer ANTIBACTERIAL HAND GEL FO 28-00004 can be declared as active against MVA as follows:

undiluted 30 seconds clean conditions

Bremen, 22/12/2020

- Dr. Britta Becker -
Head of Laboratory

- Dr. Dajana Paulmann -
Scientific Project Manager

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9. Quality control

The Quality Assurance of the results was maintained by performing the determination of the virus-inactivating properties of the disinfectant in accordance with Good Laboratory Practice regulations:

1) Chemicals Act of Germany, Appendix 1, dating of 01.08 1994 (BGBI. I, 1994, page 1703). Appendix revised at 14. 05. 1997 (BGBI. I, 1997, page 1060).
2) OECD Principles of Good Laboratory Practice (revised 1997); OECD Environmental Health and Safety Publications; Series on Principles of Good Laboratory Practice and Compliance Monitoring – Number 1. Environment Directorate, Organization for Economic Co-operation and Development, Paris 1998.

The plausibility of the results was additionally confirmed by controls incorporated in the inactivation assays.

10. Records to be maintained

All testing data, protocol, protocol modifications, the final report, and correspondence between Dr. Brill + Partner GmbH and the sponsor will be stored in the archives at Dr. Brill + Partner GmbH.

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The test results in this test report relate only to the items examined.

11. Literature

1. EN 14476:2013+A2:2019: Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of virucidal activity of chemicals disinfectants and antiseptics in human medicine test - Test method and requirements (phase 2, step 1)

2. Spearman, C.: The method of `right or wrong cases` (constant stimuli) without Gauss's formulae. Brit J Psychol; 2 1908, 227-242

3. Kärber, G.: Beitrag zur kollektiven Behandlung pharmakologischer Reihenversuche. Arch Exp Path Pharmak; 162, 1931, 480-487

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Appendix:

Legend to the Tables

Table 1: Raw data for ANTIBACTERIAL HAND GEL FO 28-00004 (50.0 %) tested against MVA

Table 2: Raw data for ANTIBACTERIAL HAND GEL FO 28-00004 (10.0 %) tested against MVA

Table 3: Raw data for formaldehyde solution (0.7 %) tested against MVA

Table 4: Raw data for control of efficacy for suppression of disinfectant's activity (80.0 %)

Table 5: Raw data (MVA) for cell sensitivity (80.0 %)

Table 6: Determination of virus titre (LVP)

Table 7: Inactivation of MVA by ANTIBACTERIAL HAND GEL FO 28-00004 (80.0 %) (30 seconds) (LVP)

Table 8 (a+b): Summary of results (end point dilution method) with ANTIBACTERIAL HAND GEL FO 28-00004 and MVA

Table 9: Summary of results (LVP) with ANTIBACTERIAL HAND GEL FO 28-00004 and MVA

Legend to the Figures

Figure 1: Virus-inactivating properties of ANTIBACTERIAL HAND GEL FO 28-00004 (80.0 %) (LVP)

Figure 2: Virus-inactivating properties of formaldehyde (0.7 %)

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Table 1: Raw data for ANTIBACTERIAL HAND GEL FO 28-00004 (50.0 %) tested against MVA at 20 °C (quantal test; 8 wells) (#7053)

Product	Concentration	Interfering substance	Contact time (min)	Dilutions (log_{10})								
				1	2	3	4	5	6	7	8	9
test product	50.0 %	clean conditions	0.5	n.d.	n.a.	n.a.	0000 0000	0000 0000	0000 0000	0000 0000	n.d.	n.d.
			5	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
			15	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
			30	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
test product cytotoxicity	50.0 %	clean conditions	n.a.	tttt tttt	tttt tttt	0000 0000	0000 0000	0000 0000	n.d.	n.d.	n.d.	n.d.
virus control	n.a.	clean conditions	0	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0340 3204	0000 0000	0000 0000	n.d.
			60	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0000 4030	0000 0000	0000 0000	n.d.

n.a. = not applicable
n.d. = not done

0 = no virus present; t = cytotoxic
1 to 4 = virus present (degree of CPE in 8 cell culture units) (wells of microtitre plates)

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Table 2: Raw data for ANTIBACTERIAL HAND GEL FO 28-00004 (10.0 %) tested against MVA at 20 °C (quantal test; 8 wells) (#7053)

Product	Concentration	Interfering substance	Contact time (min)	Dilutions (log_{10})								
				1	2	3	4	5	6	7	8	9
test product	10.0 %	clean conditions	0.5	n.d.	n.a.	n.a.	4444 4444	4444 4444	0000 4000	0040 0000	n.d.	n.d.
			5	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
			15	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
			30	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
test product cytotoxicity	10.0 %	clean conditions	n.a.	tttt tttt	tttt tttt	0000 0000	0000 0000	0000 0000	n.d.	n.d.	n.d.	n.d.
virus control	n.a.	clean conditions	0	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0340 3204	0000 0000	0000 0000	n.d.
			60	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0000 4030	0000 0000	0000 0000	n.d.

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0 = no virus present; t = cytotoxic
1 to 4 = virus present (degree of CPE in 8 cell culture units) (wells of microtitre plates)

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Table 3: Raw data for formaldehyde solution (0.7 %) tested against MVA at 20 °C (quantal test; 8 wells) (#7053)

Product	Concentration	Interfering substance	Contact time (min)	Dilutions (log_{10})								
				1	2	3	4	5	6	7	8	9
formaldehyde	0.7 % (m/V)	PBS	5	tttt tttt	tttt tttt	tttt tttt	1030 2220	0000 0000	0000 0000	0000 0000	n.d.	n.d.
			15	tttt tttt	tttt tttt	tttt tttt	2000 0000	0000 0000	0000 0000	0000 0000	n.d.	n.d.
			30	tttt tttt	tttt tttt	tttt tttt	0000 0000	0000 0000	0000 0000	0000 0000	n.d.	n.d.
			60	tttt tttt	tttt tttt	tttt tttt	0000 0000	0000 0000	0000 0000	0000 0000	n.d.	n.d.
formaldehyde cytotoxicity	0.7 % (m/V)	PBS	n.a.	tttt tttt	tttt tttt	tttt tttt	0000 0000	0000 0000	n.d.	n.d.	n.d.	n.d.
virus control	n.a.	PBS	0	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
			60	4444 4444	4444 4444	4444 4444	4444 4444	4444 3444	4403 0000	4000 0000	0000 0000	0000 0000

n.a. = not applicable
n.d. = not done

0 = no virus present; t = cytotoxic
1 to 4 = virus present (degree of CPE in 8 cell culture units) (wells of microtitre plates)

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Table 4: Raw data for control of efficacy for suppression of disinfectant's activity (80.0 %) (#7053)

Product	Interfering substance	dilutions (log_{10})								
		1	2	3	4	5	6	7	8	9
test product	clean conditions	n.d.	n.a.	n.a.	4444 4444	4444 4444	1000 0000	0000 0000	0000 0000	n.d.
corresponding virus control	clean conditions	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0000 4030	0000 0000	0000 0000	n.d.

n.a. = not applicable
n.d. = not done

0 = no virus present; t = cytotoxic
1 to 4 = virus present (degree of CPE in 8 cell culture units) (wells of microtitre plates)

Table 5: Raw data (MVA) for cell sensitivity (80.0 % solution) (#7053)

Product	Dilution	Dilutions (log_{10})								
		1	2	3	4	5	6	7	8	9
PBS	-	4444 4444	4444 4444	4444 4444	4444 4444	4443 4444	0020 0400	0000 0000	0000 0000	n.d.
test product	1:5,000	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0400 0104	4000 0000	0000 0000	n.d.

n.a. = not applicable
n.d. = not done

0 = no virus present; t = cytotoxic
1 to 4 = virus present (degree of CPE in 8 cell culture units) (wells of microtitre plates)

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ZLG-AP-216.11.02

Table 6: Determination of virus titre (LVP) at 20 °C (#7053)

Virus titration	Interfering substance	Exposure time	dilutions (log_{10})								
			1	2	3	4	5	6	7	8	9
(beginning of test)	clean conditions	0	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0340 3204	0000 0000	0000 0000	n.d.
1st control	clean conditions	60	4444 4444	4444 4444	4444 4444	4444 4444	4444 4444	0000 4030	0000 0000	0000 0000	n.d.
2nd control	clean conditions	60	4444 4444	4444 4444	4444 4444	4444 4444	1444 4444	0004 0040	0000 0000	0000 0000	n.d.

n.a. = not applicable
n.d. = not done

0 = no virus present
1 to 4 = virus present (degree of CPE in 8 cell culture units) (wells of microtitre plates)

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ZLG-AP-216.11.02

Table 7: Inactivation of MVA by ANTIBACTERIAL HAND GEL FO 28-00004 (80.0 %) at 20 °C (30 seconds) (LVP, 1:5,000) (#7053)

Interfering substance	Row	1	2	3	4	5	6	7	8	9	10	11	12
clean conditions	plate 1/6	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000
	plate 2/6	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000
	plate 3/6	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0004 0000	0000 0000	0000 0000	0000 0000	0000 0010	0000 0000
	plate 4/6	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000
	plate 5/6	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0040 0000	0000 0000	0000 0000	0000 0000
	plate 6/6	0000 0000	0000 0000	0000 0000	0000 2000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000	0000 0000

t = cytotoxic 0 = no virus detectable 1 to 4 = virus detectable (degree of CPE in 8 wells of a microtitre plate)

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Table 8a: Summary of results (end point dilution method) with ANTIBACTERIAL HAND GEL FO 28-00004 and MVA

Product	Con-centration	Interfering substance	Level of cytotoxicity	log_{10} $TCID_{50}$/ml after ....min					> 4 log_{10} reduction after …min
				0.5	1	15	30	60	
test product	50.0 %	clean conditions	3.50	≤ 4.50±0.00	n.d.	n.d.	n.d.	n.d.	≥ 0.5 (RF ≥ 2.25±0.33)
test product	10.0 %	clean conditions	3.50	6.75±0.35	n.d.	n.d.	n.d.	n.d.	> 0.5 (RF = 0.00±0.48)

n.a. = not applicable n.d. = not done

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ZLG-AP-216.11.02

Table 8b: Summary of results (end point dilution method) with ANTIBACTERIAL HAND GEL FO 28-00004 and MVA

Product	Con-centration	Interfering substance	Level of cytotoxicity	log_{10} $TCID_{50}$/ml after ....min					> 4 log_{10} reduction after … min
				0	5	15	30	60	
formaldehyde	0.7 % (w/v)	PBS	4.50	n.d.	≤ 5.13±0.37	≤ 4.63±0.25	≤ 4.50±0.00	≤ 4.50±0.00	≥ 30 (RF ≥ 2.50±0.44)
virus control	n.a.	PBS	n.a.	n.d.	n.d.	n.d.	n.d.	7.00±0.44	n.a.
virus control (+ suppression)	n.a.	clean conditions	n.a.	7.13±0.37	n.d.	n.d.	n.d.	6.75±0.33	n.a.
suppression control	80.0 %	clean conditions	n.d.	n.d.	n.d.	n.d.	6.63±0.25	n.d.	n.a.

n.a. = not applicable n.d. = not done

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Table 9: Summary of results (LVP, 1:5,000) with ANTIBACTERIAL HAND GEL FO 28-00004 and MVA

Product	Con-centration	Interfering substance	Level of cytotoxicity	log_{10} $TCID_{50}$/ml after ....min					> 4 log_{10} reduction after …min
				0	0.5	5	15	60	
test product	80.0 %	clean conditions	n.a.	n.d.	2.67	n.d.	n.d.	n.d.	0.5 (RF = 4.08±0.33)
virus control	n.a.	clean conditions	n.a.	7.13±0.37	n.d.	n.d.	n.d.	6.75±0.33 6.75±0.33 (Ø6.75±0.33)	n.a.
sens. PBS	n.a.	n.a.	n.a.	n.d.	n.d.	n.d.	n.d.	6.88±0.45	n.a.
sens. product	80.0 % → 1:5,000	n.a.	n.a.	n.d.	n.d.	n.d.	n.d.	7.00±0.38	n.a.

n.a. = not applicable n.d. = not done sens. = sensitivity n.c. = not calculable

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Figure 1: Virus-inactivating properties of ANTIBACTERIAL HAND GEL FO 28-00004 (80.0 %) (LVP)

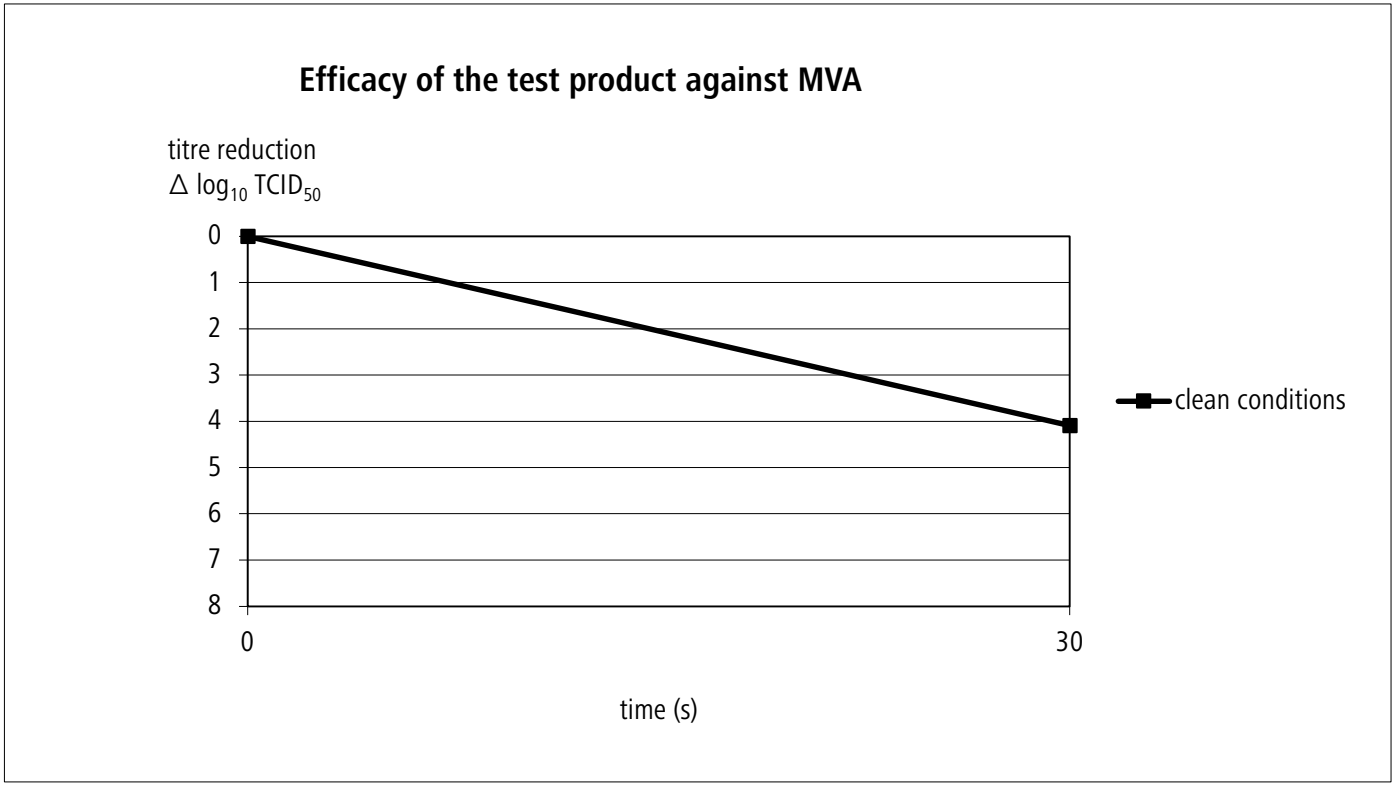

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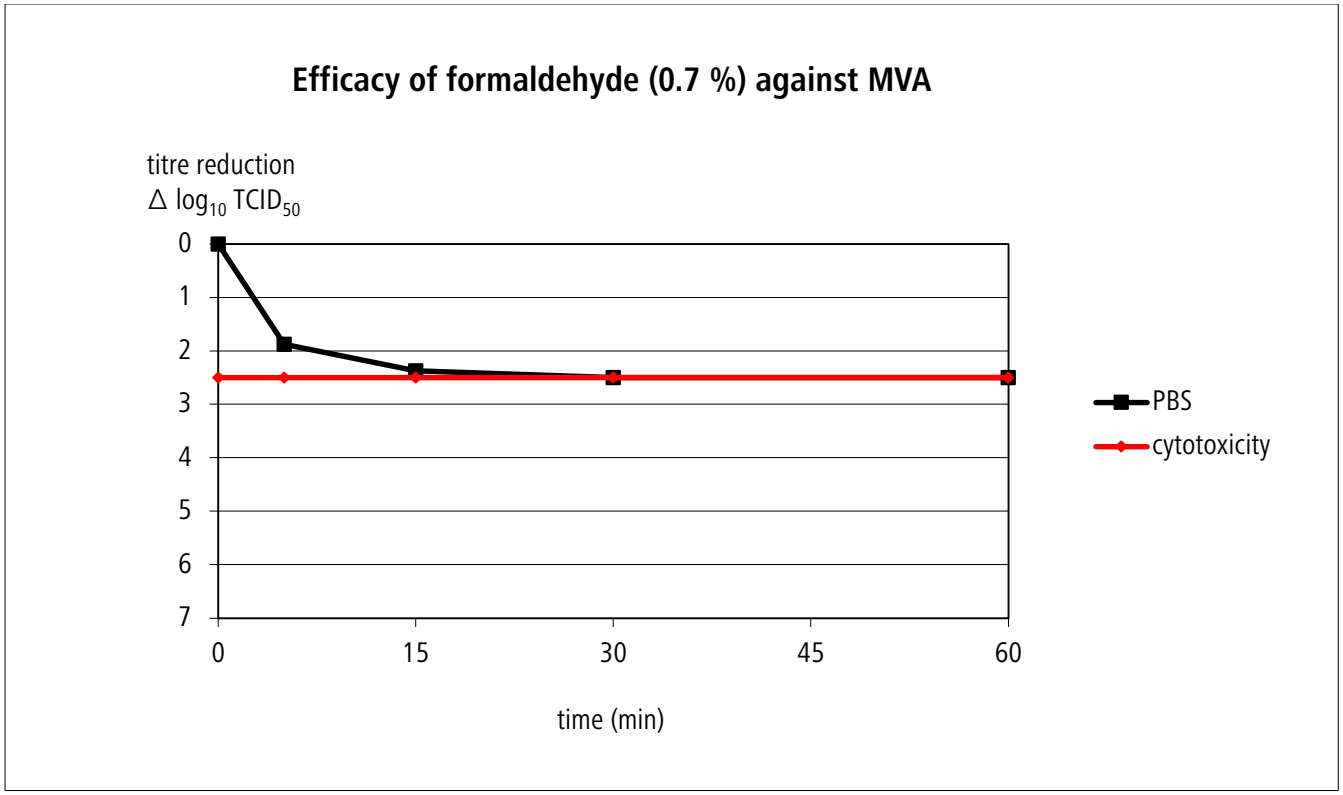
Figure 2: Virus-inactivating properties of formaldehyde (0.7 %)



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