


Effective date: <b>July 28, 2016</b>	Hy Laboratories Ltd. Park Tamar, Rehovot 76326 Tel: 972-8-9366475 Fax: 972-8-9366474 email: hylabs@hylabs.co.il		
Form: <b>F11-050-02</b>	Related SOP: <b>11-006</b>	Molecular Biology Services Test results report	Replace form: <b>F11-050-01</b>

**Inactivation of Human Coronavirus OC43 (hCoV-OC43) by the Generion Company  
Gener Sterionizer Device**

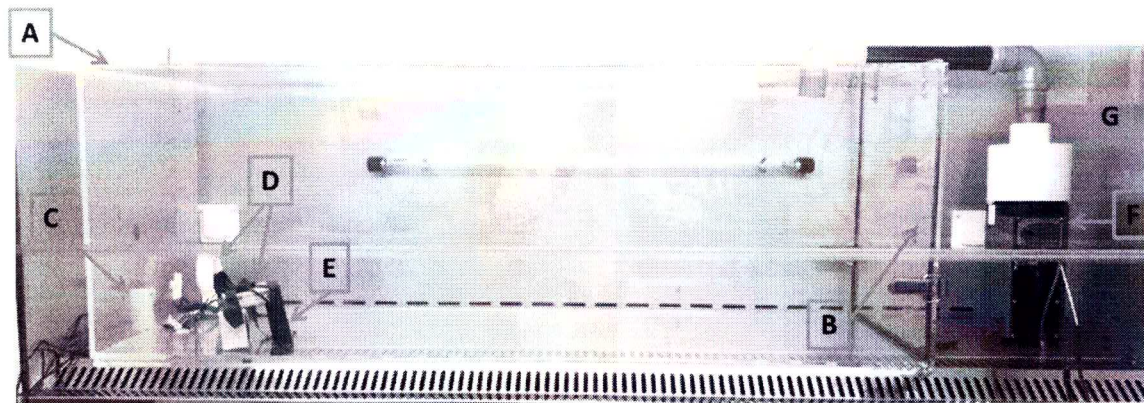
(A summarized report based on Hylabs test 82-49, order ID:363219, 26/11/2020)

**1. Aim:**

To test Gener Sterionizer devices, of two types, for their ability to inactivate human coronavirus OC43 (hCoV-OC43; an acceptable model for SARS-CoV2), by environmental sampling and monitoring of cytopathogenic effect (CPE)

**2. Components of the Gener Sterionizer testing system:**

The testing system described in this study report was set up based on counseling by the Israeli Ministry of Health (Based on customer declaration).



(A) sealed test chamber, (B) chamber door, (C) nebulizer, (D) two Gener Sterionizer devices (IS1-12D5-S1-D5, IG3-025V-C33-D6), (E) ventilator, (F) Bobcat air sampler, (G) Bobcat input pipeline and adaptor

**3. Methods and experimental procedures:**

Ions spread by the Gener Sterionizer device [anions- 26,100 ions/cm<sup>3</sup>; cations- 18,808 ions/cm<sup>3</sup>] => virus/medium nebulization => Bobcat air sampling => Filter extraction => TCID50 assay => Virus log reduction calculations

**4. Results and conclusion:**

4.1. Gener Sterionizer cytotoxicity test: no cytotoxic effect to MRC5 cells was observed.

4.2. Gener Sterionizer antiviral activity experiment:

Sample	Initial viral TCID <sub>50</sub> inoculation	Calculated viral TCID <sub>50</sub> /ml	Viral log reduction	% Virus reduction
PC I & II	2.31E+07	1.26E+06	0	0
TEST I		7.72E+03	2.2	≥99
TEST II		1.26E+04	2.0	≥99
TEST III		8.62E+03	2.2	≥99
<b>Average viral log reduction</b>			<b>2.13</b>	<b>≥99</b>

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- 4.3. Results of the 3 biological repeats of this process show that the tested Gener Sterionizer devices indeed reduced  $\geq 99\%$  (2.13 log) the viral load capable of infecting the cells, compared to the load first introduced into the test chamber.
- 4.4. Under the tested conditions and utilizing the specific testing system, the Gener Sterionizer causes significant reduction of the viral infectivity ( $3 > \log \text{reduction} \geq 2$ ; ISO 18184:2019). It is likely to cause a different effect under other test conditions and following adjustments or change of the tested system.

Performed by: Dr. Nehemya Friedman (Name & Sign) DATE: 01.03.2021

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