

Test Report

Report No. : WP-21076930-JC-01En

Sample

Origin: Customer Sample Delivery

Client: Healthy Air Technology Ltd

Oxford University Begbroke Science Park,

Address: Begbroke, Oxford, United Kingdom, OX5 1PF







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Test Report

The following sample(s) was/were submitted and identified on behalf of the applicant:

Sample Name: HA500

Sample Description: Home air purifiers

Purifier Type: HA500-DNO

Testing information:

Date of Sample Received: 2021-07-07

Testing Period: 2021-07-08~ 2021-07-20

Test Item(s): Selected test (s) as requested by client.

Test Criterion: Please refer to next page(s).

Test Result: Please refer to next page(s).

Complied by: Yingying Shao

Approved by: I Lee

Issued Date: 2021-08-03



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Test Item(s): *Antiviral activity [HCoV-229E]

Test Standard and Method: Refer to Technical specification for disinfection (2002)

Test Requirements: Viral kill rate as per customer request (1 hour exposure)

Test Supplies:

1) Virus strain: human coronavirus HCoV-229E cell: Vero-E6 cell

2) Test instruments:Biosafety Cabinet

Test Conditions:

- 1) Temperature:23~25 °C
- 2) Relative humidity:50~60%
- 3) Test time:60 minutes
- 4) Cabin volume: 20m³
- 5) Test setting: Maximum wind speed

Test Methodoology:

- 1) Adjust the temperature and relative humidity of the test chamber to the test requirements. Put the sample equipment into the experiment cabin at one time, and close the cabin door.
- 2) Turn on the aerosol generator to atomize the human coronavirus HCoV-229E. After the nebulization of the virus is completed, stir and mix well and stand for 5 min. The liquid impingement sampler was used to sample the experimental chambers of the control group and the experimental group before purification. Purify in the experimental cabin of the experimental group. The experimental cabin of the control group is used as a control.
- 3) After 60 minutes, the test cabins of the test group and the control group will be sampled at the same time. The test was repeated 3 times.
- 4) Dilute the above recovery solution in multiples, add the diluted solution to the culture plate of Vero-E6 cells, add the maintenance culture solution and continue to incubate for 3 to 5 days, and observe the cell growth status every day. When Vero-E6 cells appear rounding and shrinking and other pathological phenomena, record the occurrence of cytopathic conditions. According to the Reed-Muench formula, half of the infection TCID₅₀ was calculated. Calculate the virus titer and live virus count in the sample.

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Test Result(s):

rest result(s).			
Name of virus	HCoV-229E Vero-E6		
Sample Machine	HA500		
Time	NO	lgN_0 ($lgTCID_{50}/m^3$)	lgNx (lgTCID ₅₀ /m ³)
1h	1	5.52	<1
	2	5.59	<1
	3	5.55	<1
Average Value of lgTCID ₅₀ /m ³		5.55	<1
Total virus lgTCID ₅₀ /m ³		3.58×10 ⁵	<10
Antiviral Activity Value		>4.55	
Antiviral Kill Rate (%)		>99.99	

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Sample picture(s):



End of the Report

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