



คณะเทคนิคการแพทย์

มหาวิทยาลัยมหิดล



Test report

Virucidal activity of an “Natural AirFresh” on inanimate, nonporous environmental surfaces

Summary of the results

Test product	Natural AirFresh
Manufacturer	AF INNOVATION CO., LTD. 377/22 One Building 3 rd Fl., Khlong Lamchiak Rd., Nuanchan, Buengkum, Bangkok 10230, Thailand
Method	Virucidal activity of Natural AirFresh for use on inanimate, nonporous environmental surfaces
Test virus	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
Test area volume	Acrylic box (26 cm × 40 cm × 26 cm)
Exposure time	4 hours
Testing facility	Virology laboratory, Faculty of Medical Technology, Mahidol University, Thailand
Efficacy result	Natural AirFresh showed the virucidal activity of 0.8 log ₁₀ or 85.73% reduction in titer of SARS-CoV-2 for the exposure time of 4 hours under the test condition of this study protocol.

Test virus	Exposure time	Titer of virus control (TCID ₅₀ /100 µl)	Titer of virus after disinfection by Natural AirFresh (TCID ₅₀ /100 µl)	Log ₁₀ reduction of virus titer in average from 3 experiments	% reduction of virus titer in average from 3 experiments
SARS-CoV-2	4 hours	10 ^{5.1}	10 ^{4.2}	0.8	85.73%

Study completion date 8 July 2022

Test performed by Jarunee P.
(Miss Jarunee Prasertsopon)

Hat L.
(Asst. Prof. Dr. Hatairat Lerdsamran)



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Method	Virucidal activity of Natural AirFresh for use on inanimate, nonporous environmental surfaces
Test virus	Influenza A/H1N1 virus
Test area volume	Acrylic box (35 cm × 45 cm × 35 cm)
Exposure time	1 hour
Testing facility	Virology laboratory, Faculty of Medical Technology, Mahidol University, Thailand
Efficacy result	Natural AirFresh showed the virucidal activity of 1.0 log ₁₀ or 88.65% reduction in titer of influenza A/H1N1 virus for the exposure time of 1 hour under the test condition of this study protocol.

Test virus	Exposure time	Titer of virus control (TCID ₅₀ /100 µl)	Titer of virus after disinfection by Natural AirFresh (TCID ₅₀ /100 µl)	Log ₁₀ reduction of virus titer in average from 3 experiments	% reduction of virus titer in average from 3 experiments
Influenza A/H1N1 virus	1 hour	10 ^{5.6}	10 ^{4.6}	1.0	88.65%

Study completion date 8 April 2022

Test performed by Jarunee P.
(Miss Jarunee Prasertsopon)

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Method	Virucidal activity of Natural AirFresh for use on inanimate, nonporous environmental surfaces
Test virus	Influenza A/H1N1 virus
Test area volume	Acrylic box (35 cm × 45 cm × 35 cm)
Exposure time	4 hours
Testing facility	Virology laboratory, Faculty of Medical Technology, Mahidol University, Thailand
Efficacy result	Natural AirFresh showed the virucidal activity of 3.8 log ₁₀ or 99.98% reduction in titer of influenza A/H1N1 virus for the exposure time of 4 hours under the test condition of this study protocol.

Test virus	Exposure time	Titer of virus control (TCID ₅₀ /100 µl)	Titer of virus after disinfection by Natural AirFresh (TCID ₅₀ /100 µl)	Log ₁₀ reduction of virus titer in average from 3 experiments	% reduction of virus titer in average from 3 experiments
Influenza A/H1N1 virus	4 hours	10 ^{4.8}	10 ^{1.1}	3.8	99.98%

Study completion date 25 March 2022

Test performed by


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(Asst. Prof. Dr. Hatairat Lerdsamran)